Bibliography

[1] Draine, B. T. Interstellar Dust Grains. *Annual Review of Astronomy and Astrophysics*, 41:241–289, 2003.

[2] Inoue, A. K. The origin of dust in galaxies revisited: the mechanism determining dust content. *Earth, planets and space*, 63(10):2, 2011.

[3] Galliano, F., Galametz, M., and Jones, A. P. The interstellar dust properties of nearby galaxies. *Annual Review of Astronomy and Astrophysics*, (0), 2017.

[4] Draine, B. and Salpeter, E. Time-dependent nucleation theory. *The Journal of Chemical Physics*, 67(5):2230–2235, 1977.

[5] Yamamoto, T. and Hasegawa, H. Grain formation through nucleation process in astrophysical environment. *Progress of Theoretical Physics*, 58(3):816–828, 1977.

[6] Gehrz, R. D. Sources of stardust in the galaxy. In *Symposium-International Astronomical Union*, volume 135, 445–453. Cambridge University Press, 1989.

[7] Draine, B. T. Interstellar dust models and evolutionary implications. *arXiv preprint arXiv:0903.1658*, 2009.

[8] Matsuura, M., Barlow, M., Zijlstra, A., Whitelock, P., Cioni, M.-R., Groenewegen, M., Volk, K., Kemper, F., Kodama, T., Lagadec, E., et al. The global gas and dust budget of the large magellanic cloud: Agb stars and supernovae, and the impact on the ism evolution. *Monthly Notices of the Royal Astronomical Society*, 396(2):918–934, 2009.

[9] Rho, J., Kozasa, T., Reach, W., Smith, J., Rudnick, L., DeLaney, T., Ennis, J., Gomez, H., and Tappe, A. Freshly formed dust in the cassiopeia a supernova remnant as revealed by the spitzer space telescope. *The Astrophysical Journal*, 673(1):271, 2008.

[10] Sakon, I., Onaka, T., Wada, T., Ohyama, Y., Kaneda, H., Ishihara, D., Tanabé, T., Minezaki, T., Yoshii, Y., Tominaga, N., et al. Properties of newly formed dust by sn 2006jc based on near-to mid-infrared observation with akari. *The Astrophysical Journal*, 692(1):546, 2009.

[11] Nozawa, T., Kozasa, T., Tominaga, N., Maeda, K., Umeda, H., Nomoto, K., and Krause, O. Formation and evolution of dust in type iib supernovae with application to the cassiopeia a supernova remnant. *The Astrophysical Journal*, 713(1):356, 2010.

[12] Onaka, T. and Kamijo, F. Destruction of interstellar grains by sputtering. *Astronomy and Astrophysics*, 64:53–60, 1978.

[13] Draine, B. and Salpeter, E. Destruction mechanisms for interstellar dust. *The Astrophysical Journal*, 231:438–455, 1979.

[14] McKee, C. F. Dust destruction in the interstellar medium. In *Symposium-International Astronomical Union*, volume 135, 431–444. Cambridge University Press, 1989.

[15] Draine, B. T. Evolution of interstellar dust. In *The evolution of the interstellar medium*, volume 12, 193–205. 1990.

[16] Jones, A., Tielens, A., and Hollenbach, D. Grain shattering in shocks: The interstellar grain size distribution. *The Astrophysical Journal*, 469:740, 1996.

[17] Trumpler, R. J. Spectrophotometric Measures of Interstellar Light Absorption. *Publications of the Astronomical Society of the Pacific*, 42:267, 1930.

[18] Bernstein, R. A., Freedman, W. L., and Madore, B. F. The First Detections of the Extragalactic Background Light at 3000, 5500, and 8000 Å. I. Results. *The Astrophysical Journal*, 571:56–84, 2002.

[19] Savage, B. D. and Mathis, J. S. Observed properties of interstellar dust. *Annual review of astronomy and astrophysics*, 17(1):73–111, 1979.

[20] Cardelli, J. A., Clayton, G. C., and Mathis, J. S. The relationship between infrared, optical, and ultraviolet extinction. *The Astrophysical Journal*, 345:245–256, 1989.

[21] Gordon, K. D., Clayton, G. C., Misselt, K. A., Landolt, A. U., and Wolff, M. J. A Quantitative Comparison of the Small Magellanic Cloud,

Large Magellanic Cloud, and Milky Way Ultraviolet to Near-Infrared Extinction Curves. *The Astrophysical Journal*, 594:279–293, 2003.

[22] Katyal, N., Gupta, R., and Vaidya, D. Interstellar dust models towards some iue stars. *Publications of the Astronomical Society of the Pacific*, 125(934):1443, 2013.

[23] Draine, B. T. and Li, A. Infrared Emission from Interstellar Dust. IV. The Silicate-Graphite-PAH Model in the Post-Spitzer Era. *The Astrophysical Journal*, 657:810–837, 2007.

[24] Pei, Y. C. Interstellar dust from the Milky Way to the Magellanic Clouds. *The Astrophysical Journal*, 395:130–139, 1992.

[25] Weingartner, J. C. and Draine, B. T. Dust Grain-Size Distributions and Extinction in the Milky Way, Large Magellanic Cloud, and Small Magellanic Cloud. *The Astrophysical Journal*, 548:296–309, 2001.

[26] Draine, B. T. *Physics of the Interstellar and Intergalactic Medium*. 2011.

[27] Stecher, T. P. and Donn, B. On Graphite and Interstellar Extinction. *The Astrophysical Journal*, 142:1681, 1965.

[28] Li, A. and Draine, B. T. Do the Infrared Emission Features Need Ultraviolet Excitation? The Polycyclic Aromatic Hydrocarbon Model in UV-poor Reflection Nebulae. *The Astrophysical Journal*, 572:232–237, 2002.

[29] Treffers, R. and Cohen, M. High-resolution spectra of cool stars in the 10-and 20-micron regions. *The Astrophysical Journal*, 188:545–552, 1974.

[30] Blanco, A., Borghesi, A., Fonti, S., and Orofino, V. Circumstellar emission from dust envelopes around carbon stars showing the silicon carbide feature. *Astronomy and Astrophysics*, 330:505–514, 1998.

[31] Kemper, F., Vriend, W. J., and Tielens, A. G. G. M. The Absence of Crystalline Silicates in the Diffuse Interstellar Medium. *The Astrophysical Journal*, 609:826–837, 2004.

[32] Kemper, F., Vriend, W. J., and Tielens, A. G. G. M. Erratum: "The Absence of Crystalline Silicates in the Diffuse Interstellar Medium". *The Astrophysical Journal*, 633:534–534, 2005.

[33] Min, M., Waters, L. B. F. M., de Koter, A., Hovenier, J. W., Keller, L. P., and Markwick-Kemper, F. The shape and composition of interstellar silicate grains. *Astronomy and Astrophysics*, 462:667–676, 2007.

[34] Henning, T. F. and Mutschke, H. Optical properties of cosmic dust analogs: a review. *Journal of Nanophotonics*, 4(1):041580, 2010.

[35] Leger, A. and Puget, J. L. Identification of the 'unidentified' IR emission features of interstellar dust? *Astronomy and Astrophysics*, 137:L5–L8, 1984.

[36] Allamandola, L. J., Tielens, A. G. G. M., and Barker, J. R. Interstellar polycyclic aromatic hydrocarbons - The infrared emission bands, the excitation/emission mechanism, and the astrophysical implications. *The Astrophysical Journal Supplement Series*, 71:733–775, 1989.

[37] Gibb, E., Whittet, D., Schutte, W. a., Boogert, A., Chiar, J., Ehrenfreund, P., Gerakines, P., Keane, J., Tielens, A., van Dishoeck, E., et al. An inventory of interstellar ices toward the embedded protostar w33a. *The Astrophysical Journal*, 536(1):347, 2000.

[38] Mathis, J. S., Rumpl, W., and Nordsieck, K. H. The size distribution of interstellar grains. *The Astrophysical Journal*, 217:425–433, 1977.

[39] Zubko, V., Dwek, E., and Arendt, R. G. Interstellar Dust Models Consistent with Extinction, Emission, and Abundance Constraints. *The Astrophysical Journals*, 152:211–249, 2004.

[40] Draine, B. T. and Fraisse, A. A. Polarized far-infrared and submillimeter emission from interstellar dust. *The Astrophysical Journal*, 696(1):1, 2009.

[41] Yan, H. and Lazarian, A. Grain acceleration by magnetohydrodynamic turbulence: gyroresonance mechanism. *The Astrophysical Journal Letters*, 592(1):L33, 2003.

[42] Hirashita, H. and Kuo, T. Effects of grain size distribution on the interstellar dust mass growth. *Monthly Notices of the Royal Astronomical Society*, 416(2):1340–1353, 2011.

[43] Jessberger, E. K., Stephan, T., Rost, D., Arndt, P., Maetz, M., Stadermann, F. J., Brownlee, D. E., Bradley, J. P., and Kurat, G. Properties of interplanetary dust: Information from collected samples. In *Interplanetary dust*, 253–294. Springer, 2001.

[44] Draine, B. and Anderson, N. Temperature fluctuations and infrared emission from interstellar grains. *The Astrophysical Journal*, 292:494–499, 1985.

[45] Desert, F.-X., Boulanger, F., and Puget, J. L. Interstellar dust models for extinction and emission. *Astronomy and Astrophysics*, 237:215–236, 1990.

[46] Compiègne, M., Verstraete, L., Jones, A., Bernard, J.-P., Boulanger, F., Flagey, N., Le Bourlot, J., Paradis, D., and Ysard, N. The global dust SED: tracing the nature and evolution of dust with DustEM. *Astronomy and Astrophysics*, 525:A103, 2011.

[47] Hiltner, W. A. On the presence of polarization in the continuous radiation of stars. ii. *The Astrophysical Journal*, 109:471, 1949.

[48] Hiltner, W. A. Polarization of Light from Distant Stars by Interstellar Medium. *Science*, 109:165, 1949.

[49] Hall, J. S. Observations of the Polarized Light from Stars. *Science*, 109:166–167, 1949.

[50] Anderson, C. M., Weitenbeck, A. J., Code, A. D., Nordsieck, K. H., Meade, M. R., Babler, B. L., Zellner, N. E. B., Bjorkman, K. S., Fox, G. K., Johnson, J. J., Sanders, W. T., Lupie, O. L., and Edgar, R. J. Ultraviolet Interstellar Polarization of Galactic Starlight.I.Observations by the Wisconsin Ultraviolet Photo Polarimeter Experiment. *Astronomical Journal*, 112:2726, 1996.

[51] Clemens, D. P., Pinnick, A. F., Pavel, M. D., and Taylor, B. W. The Galactic Plane Infrared Polarization Survey (GPIPS). *The Astrophysical Journal Supplement Series*, 200:19, 2012.

[52] Cudlip, W., Furniss, I., King, K. J., and Jennings, R. E. Far infrared polarimetry of W51A and M42. *Monthly Notices of the Royal Astronomical Society*, 200:1169–1173, 1982.

[53] Dotson, J. L., Davidson, J., Dowell, C. D., Schleuning, D. A., and Hildebrand, R. H. Far-Infrared Polarimetry of Galactic Clouds from the Kuiper Airborne Observatory. *The Astrophysical Journal Supplement Series*, 128:335–370, 2000.

[54] Mathis, J. S. The Alignment of Interstellar Grains. *The Astrophysical Journal*, 308:281, 1986.

[55] Kim, S.-H. and Martin, P. G. The size distribution of interstellar dust particles as determined from polarization: Spheroids. *The Astrophysical Journal*, 444:293–305, 1995.

[56] Andersson, B. G., Lazarian, A., and Vaillancourt, J. E. Interstellar Dust Grain Alignment. *Annual Review of Astronomy and Astrophysics*, 53:501–539, 2015.

[57] Draine, B. T. and Lee, H. M. Optical properties of interstellar graphite and silicate grains. *The Astrophysical Journal*, 285:89–108, 1984.

[58] Aitken, D. K. Spectropolarimetry as a diagnostic of the interstellar medium. In Böhm-Vitense, E., editor, *Infrared Spectroscopy in Astronomy*, volume 290 of *ESA Special Publication*. 1989.

[59] Smith, C. H., Wright, C. M., Aitken, D. K., Roche, P. F., and Hough, J. H. Studies in mid-infrared spectropolarimetry - II. An atlas of spectra. *Monthly Notices of the Royal Astronomical Society*, 312:327–361, 2000.

[60] Zubko, V. G. and Laor, A. The Spectral Signature of Dust Scattering and Polarization in the Near- Infrared to Far-Ultraviolet. I. Optical Depth and Geometry Effects. *The Astrophysical Journal Supplement Series*, 128:245–269, 2000.

[61] Serkowski, K., Mathewson, D. S., and Ford, V. L. Wavelength dependence of interstellar polarization and ratio of total to selective extinction. *The Astrophysical Journal*, 196:261–290, 1975.

[62] Draine, B. T. Interstellar Dust Models. In Witt, A. N., Clayton, G. C., and Draine, B. T., editors, *Astrophysics of Dust*, volume 309, 691. 2004.

[63] Kim, S.-H. and Martin, P. G. The size distribution of interstellar dust particles as determined from polarization: Infinite cylinders. *The Astrophysical Journal*, 431:783–796, 1994.

[64] Siebenmorgen, R. and Kruegel, E. Dust model containing polycyclic aromatic hydrocarbons in various environments. *Astronomy and Astrophysics*, 259:614–626, 1992.

[65] Jones, A. P., Duley, W. W., and Williams, D. A. The structure and evolution of hydrogenated amorphous carbon grains and mantles in the interstellar medium. *Quarterly Journal of the Royal Astronomical Society — QJRAS*, 31:567–582, 1990.

[66] Li, A. and Greenberg, J. M. A unified model of interstellar dust. *Astronomy and Astrophysics*, 323:566–584, 1997.

[67] Mathis, J. S. and Whiffen, G. Composite interstellar grains. *The Astrophysical Journal*, 341:808–822, 1989.

[68] Mathis, J. S. Dust Models with Tight Abundance Constraints. *The Astrophysical Journal*, 472:643, 1996.

[69] Jones, A. P., Fanciullo, L., Köhler, M., Verstraete, L., Guillet, V., Bocchio, M., and Ysard, N. The evolution of amorphous hydrocarbons in the ISM: dust modelling from a new vantage point. *Astronomy and Astrophysics*, 558:A62, 2013.

[70] Hensley, B. and Draine, B. T. A Unified Model of Polarized Extinction and Emission from Interstellar Dust. In *American Astronomical Society Meeting Abstracts #225*, volume 225, 216.02. 2015.

[71] Morrissey, P., Conrow, T., Barlow, T. A., Small, T., Seibert, M., Wyder, T. K., Budavári, T., Arnouts, S., Friedman, P. G., Forster, K., Martin, D. C., Neff, S. G., Schiminovich, D., Bianchi, L., Donas, J., Heckman, T. M., Lee, Y.-W., Madore, B. F., Milliard, B., Rich, R. M., Szalay, A. S., Welsh, B. Y., and Yi, S. K. The Calibration and Data Products of GALEX. *The Astrophysical Journals*, 173:682–697, 2007.

[72] Bianchi, L. The Ultraviolet sky surveys: filling the gap in our view of the Universe. *Astrophysics and Space Science*, 320:11–19, 2009.

[73] Bianchi, L., Conti, A., and Shiao, B. VizieR Online Data Catalog: GALEX-GR6/7 data release (Bianchi+ 2014). *VizieR Online Data Catalog*, 2335, 2014.

[74] Beitia-Antero, L. and Gómez de Castro, A. I. Interstellar extinction in Orion: variation of the strength of the ultraviolet bump across the complex. *Monthly Notices of the Royal Astronomical Society*, 469:2531–2538, 2017.

[75] Murthy, J. GALEX Diffuse Observations of the Sky: The Data. *The Astrophysical Journals*, 213:32, 2014.

[76] Fazio, G. G., Hora, J. L., Allen, L. E., Ashby, M. L. N., Barmby, P., Deutsch, L. K., Huang, J.-S., Kleiner, S., Marengo, M., Megeath, S. T., Melnick, G. J., Pahre, M. A., Patten, B. M., Polizotti, J., Smith, H. A., Taylor, R. S., Wang, Z., Willner, S. P., Hoffmann, W. F., Pipher, J. L.,

Forrest, W. J., McMurty, C. W., McCreight, C. R., McKelvey, M. E., McMurray, R. E., Koch, D. G., Moseley, S. H., Arendt, R. G., Mentzell, J. E., Marx, C. T., Losch, P., Mayman, P., Eichhorn, W., Krebs, D., Jhabvala, M., Gezari, D. Y., Fixsen, D. J., Flores, J., Shakoorzadeh, K., Jungo, R., Hakun, C., Workman, L., Karpati, G., Kichak, R., Whitley, R., Mann, S., Tollestrup, E. V., Eisenhardt, P., Stern, D., Gorjian, V., Bhattacharya, B., Carey, S., Nelson, B. O., Glaccum, W. J., Lacy, M., Lowrance, P. J., Laine, S., Reach, W. T., Stauffer, J. A., Surace, J. A., Wilson, G., Wright, E. L., Hoffman, A., Domingo, G., and Cohen, M. The Infrared Array Camera (IRAC) for the Spitzer Space Telescope. *The Astrophysical Journal Supplement Series*, 154:10–17, 2004.

[77] Rieke, G. H., Young, E. T., Engelbracht, C. W., Kelly, D. M., Low, F. J., Haller, E. E., Beeman, J. W., Gordon, K. D., Stansberry, J. A., Misselt, K. A., Cadien, J., Morrison, J. E., Rivlis, G., Latter, W. B., Noriega-Crespo, A., Padgett, D. L., Stapelfeldt, K. R., Hines, D. C., Egami, E., Muzerolle, J., Alonso-Herrero, A., Blaylock, M., Dole, H., Hinz, J. L., Le Floc'h, E., Papovich, C., Pérez-González, P. G., Smith, P. S., Su, K. Y. L., Bennett, L., Frayer, D. T., Henderson, D., Lu, N., Masci, F., Pesenson, M., Rebull, L., Rho, J., Keene, J., Stolovy, S., Wachter, S., Wheaton, W., Werner, M. W., and Richards, P. L. The Multiband Imaging Photometer for Spitzer (MIPS). *The Astrophysical Journal Supplement Series*, 154:25–29, 2004.

[78] Onaka, T., Matsuhara, H., Wada, T., Fujishiro, N., Fujiwara, H., Ishigaki, M., Ishihara, D., Ita, Y., Kataza, H., Kim, W., Matsumoto, T., Murakami, H., Ohyama, Y., Oyabu, S., Sakon, I., Tanabé, T., Takagi, T., Uemizu, K., Ueno, M., Usui, F., Watarai, H., Cohen, M., Enya, K., Ootsubo, T., Pearson, C. P., Takeyama, N., Yamamuro, T., and Ikeda, Y. The Infrared Camera (IRC) for AKARI – Design and Imaging Performance. *Publications of the Astronomical Society of Japan*, 59:401, 2007.

[79] Kawada, M., Baba, H., Barthel, P. D., Clements, D., Cohen, M., Doi, Y., Figueredo, E., Fujiwara, M., Goto, T., Hasegawa, S., Hibi, Y., Hirao, T., Hiromoto, N., Jeong, W.-S., Kaneda, H., Kawai, T., Kawamura, A., Kester, D., Kii, T., Kobayashi, H., Kwon, S. M., Lee, H. M., Makiuti, S., Matsuo, H., Matsuura, S., Müller, T. G., Murakami, N., Nagata, H., Nakagawa, T., Narita, M., Noda, M., Oh, S. H., Okada, Y., Okuda, H., Oliver, S., Ootsubo, T., Pak, S., Park, Y.-S., Pearson, C. P., Rowan-

Robinson, M., Saito, T., Salama, A., Sato, S., Savage, R. S., Serjeant, S., Shibai, H., Shirahata, M., Sohn, J., Suzuki, T., Takagi, T., Takahashi, H., Thomson, M., Usui, F., Verdugo, E., Watabe, T., White, G. J., Wang, L., Yamamura, I., Yamauchi, C., and Yasuda, A. The Far-Infrared Surveyor (FIS) for AKARI. *Publications of the Astronomical Society of Japan*, 59:S389, 2007.

[80] Doi, Y., Takita, S., Ootsubo, T., Arimatsu, K., Tanaka, M., Kitamura, Y., Kawada, M., Matsuura, S., Nakagawa, T., Morishima, T., Hattori, M., Komugi, S., White, G. J., Ikeda, N., Kato, D., Chinone, Y., Etxaluze, M., and Cypriano, E. F. The AKARI far-infrared all-sky survey maps. *Publications of the Astronomical Society of Japan*, 67:50, 2015.

[81] Takita, S., Doi, Y., Ootsubo, T., Arimatsu, K., Ikeda, N., Kawada, M., Kitamura, Y., Matsuura, S., Nakagawa, T., Hattori, M., Morishima, T., Tanaka, M., and Komugi, S. Calibration of the AKARI far-infrared all-sky survey maps. *Publications of the Astronomical Society of Japan*, 67:51, 2015.

[82] Packham, C., Hough, J. H., and Telesco, C. M. CanariCam-Polarimetry: A Dual-Beam 10 μm Polarimeter for the GTC. In Adamson, A., Aspin, C., Davis, C., and Fujiyoshi, T., editors, *Astronomical Polarimetry: Current Status and Future Directions*, volume 343 of *Astronomical Society of the Pacific Conference Series*, 38. 2005.

[83] Telesco, C. M., Ciardi, D., French, J., Ftaclas, C., Hanna, K. T., Hon, D. B., Hough, J. H., Julian, J., Julian, R., Kidger, M., Packham, C. C., Pina, R. K., Varosi, F., and Sellar, R. G. CanariCam: a multimode mid-infrared camera for the Gran Telescopio CANARIAS. In Iye, M. and Moorwood, A. F. M., editors, *Instrument Design and Performance for Optical/Infrared Ground-based Telescopes*, volume 4841 of *Proceedings of the SPIE*, 913–922. 2003.

[84] Laher, R. R., Gorjian, V., Rebull, L. M., Masci, F. J., Fowler, J. W., Helou, G., Kulkarni, S. R., and Law, N. M. Aperture Photometry Tool. *Publications of the Astronomical Society of the Pacific*, 124:737, 2012.

[85] Bajaj, V. and Khandrika, H. Comparing Aperture Photometry Software Packages. Technical report, 2017.

[86] Verdugo, E., Yamamura, I., and Pearson, C. Akari fis data user manual, version 1.3, available in electronic form from isas at http://www. ir. isas. jaxa. jp/astro-f, 2007.

[87] Maurice, K. and Dickinson, G. J. Rank correlation methods. *London: Edward Arnold*, 1990.

[88] Bevington, P. R. and Robinson, D. K. *Data reduction and error analysis for the physical sciences.* 2003.

[89] Shalima, P., Sujatha, N. V., Murthy, J., Henry, R. C., and Sahnow, D. J. Far-ultraviolet scattering by dust in Orion. *Monthly Notices of the Royal Astronomical Society*, 367:1686–1688, 2006.

[90] Henyey, L. G. and Greenstein, J. L. Diffuse radiation in the Galaxy. *The Astrophysical Journal*, 93:70–83, 1941.

[91] Gupta, R., Vaidya, D. B., and Dutta, R. Composite circumstellar dust grains. *Monthly Notices of the Royal Astronomical Society*, 462:867–875, 2016.

[92] Bohren, C. F. and Huffman, D. R. *Absorption and scattering of light by small particles.* 1983.

[93] Wolff, M. J., Clayton, G. C., Martin, P. G., and Schulte-Ladbeck, R. E. Modeling composite and fluffy grains: The effects of porosity. *The Astrophysical Journal*, 423:412–425, 1994.

[94] Ossenkopf, V. Effective-medium theories for cosmic dust grains. *Astronomy and Astrophysics*, 251:210–219, 1991.

[95] Perrin, J.-M. and Sivan, J.-P. Porosity and impurities within interstellar grains - Is the ultraviolet bump still explained by carbonaceous material? *Astronomy and Astrophysics*, 228:238–245, 1990.

[96] Purcell, E. M. and Pennypacker, C. R. Scattering and Absorption of Light by Nonspherical Dielectric Grains. *The Astrophysical Journal*, 186:705–714, 1973.

[97] Draine, B. T. The discrete-dipole approximation and its application to interstellar graphite grains. *The Astrophysical Journal*, 333:848–872, 1988.

[98] Voshchinnikov, N. V., Il'in, V. B., Henning, T., and Dubkova, D. N. Dust extinction and absorption: the challenge of porous grains. *Astronomy and Astrophysics*, 445:167–177, 2006.

[99] Saija, R., Iatì, M. A., Borghese, F., Denti, P., Aiello, S., and Cecchi-Pestellini, C. Beyond Mie Theory: The Transition Matrix Approach in Interstellar Dust Modeling. *The Astrophysical Journal*, 559:993–1004, 2001.

[100] Saikia, G., Shalima, P., Gogoi, R., and Pathak, A. Probing the infrared counterparts of diffuse far-ultraviolet sources in the Galaxy. *Planetary and Space Science*, 149:77–82, 2017.

[101] Saikia, G., Shalima, P., Gogoi, R., and Pathak, A. Comparison of diffuse infrared and far-ultraviolet emission in the Large Magellanic Cloud: The data. *Planetary and Space Science*, 133:90–96, 2016.

[102] Saikia, G., Shalima, P., and Gogoi, R. Modelling the diffuse dust emission around Orion. *Monthly Notices of the Royal Astronomical Society*, 476:4690–4696, 2018.

[103] Allamandola, L. J., Tielens, A. G. G. M., and Barker, J. R. Polycyclic aromatic hydrocarbons and the unidentified infrared emission bands - Auto exhaust along the Milky Way. *The Astrophysical Journall*, 290:L25–L28, 1985.

[104] Wu, J., Evans, N. J., II, Gao, Y., Solomon, P. M., Shirley, Y. L., and Vanden Bout, P. A. Connecting Dense Gas Tracers of Star Formation in our Galaxy to High-z Star Formation. *The Astrophysical Journal Letters*, 635:L173–L176, 2005.

[105] Bendo, G. J., Draine, B. T., Engelbracht, C. W., Helou, G., Thornley, M. D., Bot, C., Buckalew, B. A., Calzetti, D., Dale, D. A., Hollenbach, D. J., Li, A., and Moustakas, J. The relations among 8, 24 and 160 μm dust emission within nearby spiral galaxies. *Monthly Notices of the Royal Astronomical Society*, 389:629–650, 2008.

[106] Murthy, J. Modelling dust scattering in our Galaxy. *Monthly Notices of the Royal Astronomical Society*, 459:1710–1720, 2016.

[107] Murthy, J., Henry, R. C., and Holberg, J. B. Voyager observations of dust scattering near the Coalsack nebula. *The Astrophysical Journal*, 428:233–236, 1994.

[108] Murthy, J., Hall, D., Earl, M., Henry, R. C., and Holberg, J. B. An Analysis of 17 Years of Voyager Observations of the Diffuse Far-Ultraviolet Radiation Field. *The Astrophysical Journal*, 522:904–914, 1999.

[109] Sujatha, N. V., Murthy, J., Shalima, P., and Henry, R. C. Measurement of Dust Optical Properties in the Coalsack Nebula. *The Astrophysical Journal*, 665:363–368, 2007.

[110] Murthy, J. and Sahnow, D. J. Observations of the Diffuse Far-Ultraviolet Background with the Far Ultraviolet Spectroscopic Explorer. *The Astrophysical Journal*, 615:315–322, 2004.

[111] Schlegel, D. J., Finkbeiner, D. P., and Davis, M. Maps of Dust Infrared Emission for Use in Estimation of Reddening and Cosmic Microwave Background Radiation Foregrounds. *The Astrophysical Journal*, 500:525–553, 1998.

[112] Seon, K.-I., Edelstein, J., Korpela, E., Witt, A., Min, K.-W., Han, W., Shinn, J., Kim, I.-J., and Park, J.-W. Observation of the Far-ultraviolet Continuum Background with SPEAR/FIMS. *The Astrophysical Journals*, 196:15, 2011.

[113] Seon, K.-I., Witt, A., Kim, I.-J., Shinn, J.-H., Edelstein, J., Min, K.-W., and Han, W. Comparison of the Diffuse Hα and FUV Continuum Backgrounds: On the Origins of the Diffuse Hα Background. *The Astrophysical Journal*, 743:188, 2011.

[114] Hamden, E. T., Schiminovich, D., and Seibert, M. The Diffuse Galactic Far-ultraviolet Sky. *The Astrophysical Journal*, 779:180, 2013.

[115] Calzetti, D., Kennicutt, R. C., Engelbracht, C. W., Leitherer, C., Draine, B. T., Kewley, L., Moustakas, J., Sosey, M., Dale, D. A., Gordon, K. D., Helou, G. X., Hollenbach, D. J., Armus, L., Bendo, G., Bot, C., Buckalew, B., Jarrett, T., Li, A., Meyer, M., Murphy, E. J., Prescott, M., Regan, M. W., Rieke, G. H., Roussel, H., Sheth, K., Smith, J. D. T., Thornley, M. D., and Walter, F. The Calibration of Mid-Infrared Star Formation Rate Indicators. *The Astrophysical Journal*, 666:870–895, 2007.

[116] Prescott, M. K. M., Kennicutt, R. C., Jr., Bendo, G. J., Buckalew, B. A., Calzetti, D., Engelbracht, C. W., Gordon, K. D., Hollenbach, D. J., Lee, J. C., Moustakas, J., Dale, D. A., Helou, G., Jarrett, T. H., Murphy, E. J., Smith, J.-D. T., Akiyama, S., and Sosey, M. L. The Incidence of Highly Obscured Star-forming Regions in SINGS Galaxies. *The Astrophysical Journal*, 668:182–202, 2007.

[117] Witt, A. N., Gold, B., Barnes, F. S., III, DeRoo, C. T., Vijh, U. P., and Madsen, G. J. On the Origins of the High-latitude Hα Background. *The Astrophysical Journal*, 724:1551-1560, 2010.

[118] Sano, K., Kawara, K., Matsuura, S., Kataza, H., Arai, T., and Matsuoka, Y. Measurements of diffuse sky emission components in high galactic latitudes at 3.5 and 4.9 um using dirbe and wise data. *The Astrophysical Journal*, 818(1):72, 2016.

[119] Pagel, B. E. J., Edmunds, M. G., Fosbury, R. A. E., and Webster, B. L. A survey of chemical compositions of H II regions in the Magellanic Clouds. *Monthly Notices of the Royal Astronomical Society*, 184:569–592, 1978.

[120] Feast, M. The Distance to the Large Magellanic Cloud; A Critical Review. In Chu, Y.-H., Suntzeff, N., Hesser, J., and Bohlender, D., editors, *New Views of the Magellanic Clouds*, volume 190 of *IAU Symposium*, 542. 1999.

[121] Stephens, I. W., Evans, J. M., Xue, R., Chu, Y.-H., Gruendl, R. A., and Segura-Cox, D. M. Spitzer Observations of Dust Emission from H II Regions in the Large Magellanic Cloud. *The Astrophysical Journal*, 784:147, 2014.

[122] Putman, M. E., Gibson, B. K., Staveley-Smith, L., Banks, G., Barnes, D. G., Bhatal, R., Disney, M. J., Ekers, R. D., Freeman, K. C., Haynes, R. F., Henning, P., Jerjen, H., Kilborn, V., Koribalski, B., Knezek, P., Malin, D. F., Mould, J. R., Oosterloo, T., Price, R. M., Ryder, S. D., Sadler, E. M., Stewart, I., Stootman, F., Vaile, R. A., Webster, R. L., and Wright, A. E. Tidal disruption of the Magellanic Clouds by the Milky Way. *Nature*, 394:752–754, 1998.

[123] Oestreicher, M. O. and Schmidt-Kaler, T. The dust distribution inside the Large Magellanic Cloud. *Astronomy and Astrophysicss*, 117:303–312, 1996.

[124] Gorjian, V., Werner, M. W., Mould, J. R., Gordon, K. D., Muzzerole, J., Morrison, J., Surace, J. M., Rebull, L. M., Hurt, R. L., Smith, R. C., Points, S. D., Aguilera, C., Buizer, J. M. D., and Packham, C. Infrared imaging of the large magellanic cloud star-forming region henize 206. *The Astrophysical Journal Supplement Series*, 154(1):275, 2004.

[125] Henize, K. G. Catalogues of Hα-EMISSION Stars and Nebulae in the

Magellanic Clouds. *The Astrophysical Journal Supplement Series*, 2:315, 1956.

[126] Meixner, M., Gordon, K. D., Indebetouw, R., Hora, J. L., Whitney, B., Blum, R., Reach, W., Bernard, J.-P., Meade, M., Babler, B., Engelbracht, C. W., For, B.-Q., Misselt, K., Vijh, U., Leitherer, C., Cohen, M., Churchwell, E. B., Boulanger, F., Frogel, J. A., Fukui, Y., Gallagher, J., Gorjian, V., Harris, J., Kelly, D., Kawamura, A., Kim, S., Latter, W. B., Madden, S., Markwick-Kemper, C., Mizuno, A., Mizuno, N., Mould, J., Nota, A., Oey, M. S., Olsen, K., Onishi, T., Paladini, R., Panagia, N., Perez-Gonzalez, P., Shibai, H., Sato, S., Smith, L., Staveley-Smith, L., Tielens, A. G. G. M., Ueta, T., van Dyk, S., Volk, K., Werner, M., and Zaritsky, D. Spitzer Survey of the Large Magellanic Cloud: Surveying the Agents of a Galaxy's Evolution (SAGE). I. Overview and Initial Results. *The Astronomical Journal*, 132:2268–2288, 2006.

[127] Murata, K., Koyama, Y., Tanaka, M., Matsuhara, H., and Kodama, T. Environmental dependence of polycyclic aromatic hydrocarbon emission at z ˜ 0.8. Investigation by observing RX J0152.7-1357 with AKARI. *Astronomy and Astrophysics*, 581:A114, 2015.

[128] Werner, M. W., Uchida, K. I., Sellgren, K., Marengo, M., Gordon, K. D., Morris, P. W., Houck, J. R., and Stansberry, J. A. New Infrared Emission Features and Spectral Variations in NGC 7023. *The Astrophysical Journals*, 154:309–314, 2004.

[129] Murakami, H., Baba, H., Barthel, P., Clements, D. L., Cohen, M., Doi, Y., Enya, K., Figueredo, E., Fujishiro, N., Fujiwara, H., Fujiwara, M., Garcia-Lario, P., Goto, T., Hasegawa, S., Hibi, Y., Hirao, T., Hiromoto, N., Hong, S. S., Imai, K., Ishigaki, M., Ishiguro, M., Ishihara, D., Ita, Y., Jeong, W.-S., Jeong, K. S., Kaneda, H., Kataza, H., Kawada, M., Kawai, T., Kawamura, A., Kessler, M. F., Kester, D., Kii, T., Kim, D. C., Kim, W., Kobayashi, H., Koo, B. C., Kwon, S. M., Lee, H. M., Lorente, R., Makiuti, S., Matsuhara, H., Matsumoto, T., Matsuo, H., Matsuura, S., Müller, T. G., Murakami, N., Nagata, H., Nakagawa, T., Naoi, T., Narita, M., Noda, M., Oh, S. H., Ohnishi, A., Ohyama, Y., Okada, Y., Okuda, H., Oliver, S., Onaka, T., Ootsubo, T., Oyabu, S., Pak, S., Park, Y.-S., Pearson, C. P., Rowan-Robinson, M., Saito, T., Sakon, I., Salama, A., Sato, S., Savage, R. S., Serjeant, S., Shibai, H., Shirahata, M., Sohn, J., Suzuki, T., Takagi, T., Takahashi, H., Tanabé, T., Takeuchi, T. T., Takita, S., Thomson, M., Uemizu, K., Ueno, M.,

Usui, F., Verdugo, E., Wada, T., Wang, L., Watabe, T., Watarai, H., White, G. J., Yamamura, I., Yamauchi, C., and Yasuda, A. The Infrared Astronomical Mission AKARI. *Publications of the Astronomical Society of Japan*, 59:369, 2007.

[130] Pradhan, A. C., Pathak, A., and Murthy, J. Far-ultraviolet diffuse emission from the large magellanic cloud. *The Astrophysical Journal Letters*, 718(2):L141, 2010.

[131] Calzetti, D., Kennicutt, R. C., Jr., Bianchi, L., Thilker, D. A., Dale, D. A., Engelbracht, C. W., Leitherer, C., Meyer, M. J., Sosey, M. L., Mutchler, M., Regan, M. W., Thornley, M. D., Armus, L., Bendo, G. J., Boissier, S., Boselli, A., Draine, B. T., Gordon, K. D., Helou, G., Hollenbach, D. J., Kewley, L., Madore, B. F., Martin, D. C., Murphy, E. J., Rieke, G. H., Rieke, M. J., Roussel, H., Sheth, K., Smith, J. D., Walter, F., White, B. A., Yi, S., Scoville, N. Z., Polletta, M., and Lindler, D. Star Formation in NGC 5194 (M51a): The Panchromatic View from GALEX to Spitzer. *The Astrophysical Journal*, 633:871–893, 2005.

[132] Pérez-González, P. G., Kennicutt, R. C., Jr., Gordon, K. D., Misselt, K. A., Gil de Paz, A., Engelbracht, C. W., Rieke, G. H., Bendo, G. J., Bianchi, L., Boissier, S., Calzetti, D., Dale, D. A., Draine, B. T., Jarrett, T. H., Hollenbach, D., and Prescott, M. K. M. Ultraviolet through Far-Infrared Spatially Resolved Analysis of the Recent Star Formation in M81 (NGC 3031). *The Astrophysical Journal*, 648:987–1006, 2006.

[133] Zhu, Y.-N., Wu, H., Cao, C., and Li, H.-N. Correlations between Mid-Infrared, Far-Infrared, Hα, and FUV Luminosities for Spitzer SWIRE Field Galaxies. *The Astrophysical Journal*, 686:155–171, 2008.

[134] Prevot, M. L., Lequeux, J., Prevot, L., Maurice, E., and Rocca-Volmerange, B. The typical interstellar extinction in the Small Magellanic Cloud. *Astronomy and Astrophysics*, 132:389–392, 1984.

[135] Bouchet, P., Lequeux, J., Maurice, E., Prevot, L., and Prevot-Burnichon, M. L. The visible and infrared extinction law and the gas-to-dust ratio in the Small Magellanic Cloud. *Astronomy and Astrophysics*, 149:330–336, 1985.

[136] Dufour, R. J. The composition of H II regions in the Magellanic Clouds. In van den Bergh, S. and de Boer, K. S. D., editors, *Structure and Evolution of the Magellanic Clouds*, volume 108 of *IAU Symposium*, 353–360. 1984.

[137] Lequeux, J. Comparison of the Rates of Formation of Massive Stars and of the Initial Mass Functions in Galaxies of the Local Group. *Astronomy and Astrophysics*, 71:1, 1979.

[138] Koornneef, J. The gas to dust ratio and the near-infrared extinction law in the Large Magellanic Cloud. *Astronomy and Astrophysics*, 107:247–251, 1982.

[139] Hilditch, R. W., Howarth, I. D., and Harries, T. J. Forty eclipsing binaries in the Small Magellanic Cloud: fundamental parameters and Cloud distance. *Monthly Notices of the Royal Astronomical Society*, 357:304–324, 2005.

[140] Witt, A. N. and Gordon, K. D. Multiple Scattering in Clumpy Media. II. Galactic Environments. *The Astrophysical Journal*, 528:799–816, 2000.

[141] Maíz Apellániz, J. and Rubio, M. Ultraviolet extinction toward a quiescent molecular cloud in the Small Magellanic Cloud. *Astronomy and Astrophysics*, 541:A54, 2012.

[142] Léger, A., Verstraete, L., D'Hendecourt, L., Défourneau, D., Dutuit, O., Schmidt, W., and Lauer, J. The PAH Hypothesis and the Extinction Curve. In Allamandola, L. J. and Tielens, A. G. G. M., editors, *Interstellar Dust*, volume 135 of *IAU Symposium*, 173. 1989.

[143] Joblin, C., Leger, A., and Martin, P. Contribution of polycyclic aromatic hydrocarbon molecules to the interstellar extinction curve. *The Astrophysical Journal Letters*, 393:L79–L82, 1992.

[144] Barbaro, G., Mazzei, P., Morbidelli, L., Patriarchi, P., and Perinotto, M. Classification and properties of UV extinction curves. *Astronomy and Astrophysics*, 365:157–164, 2001.

[145] Steglich, M., Jäger, C., Rouillé, G., Huisken, F., Mutschke, H., and Henning, T. Electronic Spectroscopy of Medium-sized Polycyclic Aromatic Hydrocarbons: Implications for the Carriers of the 2175 Å UV Bump. *The Astrophysical Journal Letters*, 712:L16–L20, 2010.

[146] Steglich, M., Bouwman, J., Huisken, F., and Henning, T. Can Neutral and Ionized Polycyclic Aromatic Hydrocarbons Be Carriers of the Ultraviolet Extinction Bump and the Diffuse Interstellar Bands? *The Astrophysical Journal*, 742:2, 2011.

[147] Madden, S. C. Effects of massive star formation on the ISM of dwarf galaxies. *New Astronomy Reviews*, 44:249–256, 2000.

[148] Engelbracht, C. W., Gordon, K. D., Rieke, G. H., Werner, M. W., Dale, D. A., and Latter, W. B. Metallicity Effects on Mid-Infrared Colors and the 8 μm PAH Emission in Galaxies. *The Astrophysical Journal Letters*, 628:L29–L32, 2005.

[149] Madden, S. C., Galliano, F., Jones, A. P., and Sauvage, M. ISM properties in low-metallicity environments. *Astronomy and Astrophysics*, 446:877–896, 2006.

[150] Jackson, D. C., Cannon, J. M., Skillman, E. D., Lee, H., Gehrz, R. D., Woodward, C. E., and Polomski, E. Hot Dust and Polycyclic Aromatic Hydrocarbon Emission at Low Metallicity: A Spitzer Survey of Local Group and Other Nearby Dwarf Galaxies. *The Astrophysical Journal*, 646:192–204, 2006.

[151] Wu, Y., Charmandaris, V., Hao, L., Brandl, B. R., Bernard-Salas, J., Spoon, H. W. W., and Houck, J. R. Mid-Infrared Properties of Low-Metallicity Blue Compact Dwarf Galaxies from the Spitzer Infrared Spectrograph. *The Astrophysical Journal*, 639:157–172, 2006.

[152] Engelbracht, C. W., Rieke, G. H., Gordon, K. D., Smith, J.-D. T., Werner, M. W., Moustakas, J., Willmer, C. N. A., and Vanzi, L. Metallicity Effects on Dust Properties in Starbursting Galaxies. *The Astrophysical Journal*, 678:804–827, 2008.

[153] Sandstrom, K. M., Bolatto, A. D., Draine, B. T., Bot, C., and Stanimirović, S. The Spitzer Survey of the Small Magellanic Cloud (S^3MC): Insights into the Life Cycle of Polycyclic Aromatic Hydrocarbons. *The Astrophysical Journal*, 715:701–723, 2010.

[154] Dale, D. A., Bendo, G. J., Engelbracht, C. W., Gordon, K. D., Regan, M. W., Armus, L., Cannon, J. M., Calzetti, D., Draine, B. T., Helou, G., Joseph, R. D., Kennicutt, R. C., Li, A., Murphy, E. J., Roussel, H., Walter, F., Hanson, H. M., Hollenbach, D. J., Jarrett, T. H., Kewley, L. J., Lamanna, C. A., Leitherer, C., Meyer, M. J., Rieke, G. H., Rieke, M. J., Sheth, K., Smith, J. D. T., and Thornley, M. D. Infrared Spectral Energy Distributions of Nearby Galaxies. *The Astrophysical Journal*, 633:857–870, 2005.

[155] Onaka, T., Tokura, D., Sakon, I., Tajiri, Y. Y., Takagi, T., and Shibai, H. Mid- to Far-Infrared Spectral Energy Distribution of the Diffuse Galactic Radiation. *The Astrophysical Journal*, 654:844–857, 2007.

[156] Gordon, K. D. and Clayton, G. C. Starburst-like Dust Extinction in the Small Magellanic Cloud. *The Astrophysical Journal*, 500:816–824, 1998.

[157] Pradhan, A. C., Murthy, J., and Pathak, A. Observations of Far-ultraviolet Diffuse Emission from the Small Magellanic Cloud. *The Astrophysical Journal*, 743:80, 2011.

[158] Moos, H. W., Cash, W. C., Cowie, L. L., Davidsen, A. F., Dupree, A. K., Feldman, P. D., Friedman, S. D., Green, J. C., Green, R. F., Gry, C., Hutchings, J. B., Jenkins, E. B., Linsky, J. L., Malina, R. F., Michalitsianos, A. G., Savage, B. D., Shull, J. M., Siegmund, O. H. W., Snow, T. P., Sonneborn, G., Vidal-Madjar, A., Willis, A. J., Woodgate, B. E., York, D. G., Ake, T. B., Andersson, B.-G., Andrews, J. P., Barkhouser, R. H., Bianchi, L., Blair, W. P., Brownsberger, K. R., Cha, A. N., Chayer, P., Conard, S. J., Fullerton, A. W., Gaines, G. A., Grange, R., Gummin, M. A., Hebrard, G., Kriss, G. A., Kruk, J. W., Mark, D., McCarthy, D. K., Morbey, C. L., Murowinski, R., Murphy, E. M., Oegerle, W. R., Ohl, R. G., Oliveira, C., Osterman, S. N., Sahnow, D. J., Saisse, M., Sembach, K. R., Weaver, H. A., Welsh, B. Y., Wilkinson, E., and Zheng, W. Overview of the Far Ultraviolet Spectroscopic Explorer Mission. *The Astrophysical Journal Letters*, 538:L1–L6, 2000.

[159] Sahnow, D. J., Moos, H. W., Ake, T. B., Andersen, J., Andersson, B.-G., Andre, M., Artis, D., Berman, A. F., Blair, W. P., Brownsberger, K. R., Calvani, H. M., Chayer, P., Conard, S. J., Feldman, P. D., Friedman, S. D., Fullerton, A. W., Gaines, G. A., Gawne, W. C., Green, J. C., Gummin, M. A., Jennings, T. B., Joyce, J. B., Kaiser, M. E., Kruk, J. W., Lindler, D. J., Massa, D., Murphy, E. M., Oegerle, W. R., Ohl, R. G., Roberts, B. A., Romelfanger, M. L., Roth, K. C., Sankrit, R., Sembach, K. R., Shelton, R. L., Siegmund, O. H. W., Silva, C. J., Sonneborn, G., Vaclavik, S. R., Weaver, H. A., and Wilkinson, E. On-Orbit Performance of the Far Ultraviolet Spectroscopic Explorer Satellite. *The Astrophysical Journal Letters*, 538:L7–L11, 2000.

[160] Boggess, A., Carr, F. A., Evans, D. C., Fischel, D., Freeman, H. R., Fuechsel, C. F., Klinglesmith, D. A., Krueger, V. L., Longanecker, G. W., and Moore, J. V. The IUE spacecraft and instrumentation. *Nature*, 275:372–377, 1978.

[161] Boggess, A., Bohlin, R. C., Evans, D. C., Freeman, H. R., Gull, T. R., Heap, S. R., Klinglesmith, D. A., Longanecker, G. R., Sparks, W., and West, D. K. In-flight performance of the IUE. *Nature*, 275:377–385, 1978.

[162] Kondo, Y., Boggess, A., and Maran, S. P. Astrophysical contributions of the International Ultraviolet Explorer. *Annual Review of Astronomy and Astrophysics*, 27:397–420, 1989.

[163] Bohlin, R. C., Holm, A. V., Savage, B. D., Snijders, M. A. J., and Sparks, W. M. Photometric calibration of the International Ultraviolet Explorer /IUE/ - Low dispersion. *Astronomy and Astrophysics*, 85:1–13, 1980.

[164] Wright, E. L., Eisenhardt, P. R. M., Mainzer, A. K., Ressler, M. E., Cutri, R. M., Jarrett, T., Kirkpatrick, J. D., Padgett, D., McMillan, R. S., Skrutskie, M., Stanford, S. A., Cohen, M., Walker, R. G., Mather, J. C., Leisawitz, D., Gautier, T. N., III, McLean, I., Benford, D., Lonsdale, C. J., Blain, A., Mendez, B., Irace, W. R., Duval, V., Liu, F., Royer, D., Heinrichsen, I., Howard, J., Shannon, M., Kendall, M., Walsh, A. L., Larsen, M., Cardon, J. G., Schick, S., Schwalm, M., Abid, M., Fabinsky, B., Naes, L., and Tsai, C.-W. The Wide-field Infrared Survey Explorer (WISE): Mission Description and Initial On-orbit Performance. *The Astronomical Journal*, 140:1868–1881, 2010.

[165] Sandstrom, K. M., Bolatto, A. D., Draine, B. T., Bot, C., and Stanimirovic, S. The Spitzer Surveys of the Small Magellanic Cloud: Insights into the Life-Cycle of Polycyclic Aromatic Hydrocarbons. In Joblin, C. and Tielens, A. G. G. M., editors, *EAS Publications Series*, volume 46 of *EAS Publications Series*, 215–221. 2011.

[166] Oey, M. S., López-Hernández, J., Kellar, J. A., Pellegrini, E. W., Gordon, K. D., Jameson, K. E., Li, A., Madden, S. C., Meixner, M., Roman-Duval, J., Bot, C., Rubio, M., and Tielens, A. G. G. M. Dust Emission at 8 and 24 μm as Diagnostics of H II Region Radiative Transfer. *The Astrophysical Journal*, 844:63, 2017.

[167] Seok, J. Y., Hirashita, H., and Asano, R. S. Formation history of polycyclic aromatic hydrocarbons in galaxies. *Monthly Notices of the Royal Astronomical Society*, 439:2186–2196, 2014.

[168] Plante, S. and Sauvage, M. The Embedded Super-Star Cluster of SBS 0335-052. *The Astronomical Journal*, 124:1995–2005, 2002.

[169] O'Halloran, B., Satyapal, S., and Dudik, R. P. The Polycyclic Aromatic Hydrocarbon Emission Deficit in Low-Metallicity Galaxies-A Spitzer View. *The Astrophysical Journal*, 641:795–800, 2006.

[170] Lisenfeld, U. and Ferrara, A. Dust-to-Gas Ratio and Metal Abundance in Dwarf Galaxies. *The Astrophysical Journal*, 496:145–154, 1998.

[171] Bally, J. *Overview of the Orion Complex*, 459. 2008.

[172] Carruthers, G. R. and Opal, C. B. Far-ultraviolet imagery of the Orion Nebula. *The Astrophysical Journal*, 217:95–102, 1977.

[173] Lockhart, I. A. and Goss, W. M. High-resolution mapping of the H I absorption lines in the direction of NGC 2024, Orion A, M17 and W49. *Astronomy and Astrophysics*, 67:355–372, 1978.

[174] O'dell, C. R., Valk, J. H., Wen, Z., and Meyer, D. M. Identification of velocity systems in the inner Orion nebula. *The Astrophysical Journal*, 403:678–683, 1993.

[175] Abel, N., Brogan, C., Ferland, G. J., O'Dell, C., Shaw, G., and Troland, T. H. Physical conditions in orion's veil. *The Astrophysical Journal*, 609(1):247, 2004.

[176] O'Dell, C. R. Structure of the Orion Nebula. *Publications of the Astronomical Society of the Pacific*, 113:29–40, 2001.

[177] Huygens, C. *Cristiani Hugenii... Systema Saturnium sive de causis mirandorum Saturni phaenomenon et comite ejus planeta novo.* 1659.

[178] Scandariato, G., Robberto, M., Pagano, I., and Hillenbrand, L. A. The extinction map of the OMC-1 molecular cloud behind the Orion nebula. *Astronomy and Astrophysics*, 533:A38, 2011.

[179] van der Werf, P. P., Goss, W. M., and O'Dell, C. R. Tearing the Veil: Interaction of the Orion Nebula with its Neutral Environment. *The Astrophysical Journal*, 762:101, 2013.

[180] Weilbacher, P. M., Monreal-Ibero, A., Kollatschny, W., Ginsburg, A., McLeod, A. F., Kamann, S., Sandin, C., Palsa, R., Wisotzki, L., Bacon, R., Selman, F., Brinchmann, J., Caruana, J., Kelz, A., Martinsson, T., Pécontal-Rousset, A., Richard, J., and Wendt, M. A MUSE map of the central Orion Nebula (M 42). *Astronomy and Astrophysics*, 582:A114, 2015.

[181] Schlafly, E. F., Green, G., Finkbeiner, D. P., Rix, H.-W., Burgett, W. S., Chambers, K. C., Draper, P. W., Kaiser, N., Martin, N. F., Metcalfe, N., Morgan, J. S., Price, P. A., Tonry, J. L., Wainscoat, R. J., and Waters, C. Three-dimensional Dust Mapping Reveals that Orion Forms Part of a Large Ring of Dust. *The Astrophysical Journal*, 799:116, 2015.

[182] Martin, D. C., Fanson, J., Schiminovich, D., Morrissey, P., Friedman, P. G., Barlow, T. A., Conrow, T., Grange, R., Jelinsky, P. N., Milliard, B., Siegmund, O. H. W., Bianchi, L., Byun, Y.-I., Donas, J., Forster, K., Heckman, T. M., Lee, Y.-W., Madore, B. F., Malina, R. F., Neff, S. G., Rich, R. M., Small, T., Surber, F., Szalay, A. S., Welsh, B., and Wyder, T. K. The Galaxy Evolution Explorer: A Space Ultraviolet Survey Mission. *The Astrophysical Journall*, 619:L1–L6, 2005.

[183] Perryman, M. A. C., Lindegren, L., Kovalevsky, J., Hoeg, E., Bastian, U., Bernacca, P. L., Crézé, M., Donati, F., Grenon, M., Grewing, M., van Leeuwen, F., van der Marel, H., Mignard, F., Murray, C. A., Le Poole, R. S., Schrijver, H., Turon, C., Arenou, F., Froeschlé, M., and Petersen, C. S. The HIPPARCOS Catalogue. *Astronomy and Astrophysics*, 323:L49–L52, 1997.

[184] Planck Collaboration, Adam, R., Ade, P. A. R., Aghanim, N., Alves, M. I. R., Arnaud, M., Ashdown, M., Aumont, J., Baccigalupi, C., Banday, A. J., and et al. Planck 2015 results. X. Diffuse component separation: Foreground maps. *Astronomy and Astrophysics*, 594:A10, 2016.

[185] Onaka, T. and Okada, Y. Detection of Far-Infrared Features in Star-Forming Regions. *The Astrophysical Journal*, 585:872–877, 2003.

[186] Galliano, E., Alloin, D., Pantin, E., Lagage, P. O., and Marco, O. Mid-infrared imaging of active galaxies. Active nuclei and embedded star clusters. *Astronomy and Astrophysics*, 438:803–820, 2005.

[187] Herbig, G. H. Spectral Classifications for 112 Variable Stars. *The Astrophysical Journal*, 131:632, 1960.

[188] Waters, L. B. F. M. and Waelkens, C. Herbig Ae/Be Stars. *Annual Review of Astronomy and Astrophysics*, 36:233–266, 1998.

[189] Leinert, C., Haas, M., Ábrahám, P., and Richichi, A. Halos around Herbig Ae/Be stars - more common than for the less massive T Tauri stars. *Astronomy and Astrophysics*, 375:927–936, 2001.

[190] Juhász, A., Bouwman, J., Henning, T., Acke, B., van den Ancker, M. E., Meeus, G., Dominik, C., Min, M., Tielens, A. G. G. M., and Waters, L. B. F. M. Dust Evolution in Protoplanetary Disks Around Herbig Ae/Be Stars—the Spitzer View. *The Astrophysical Journal*, 721:431–455, 2010.

[191] Meeus, G., Waters, L. B. F. M., Bouwman, J., van den Ancker, M. E., Waelkens, C., and Malfait, K. ISO spectroscopy of circumstellar dust in 14 Herbig Ae/Be systems: Towards an understanding of dust processing. *Astronomy and Astrophysics*, 365:476–490, 2001.

[192] Leinert, C., van Boekel, R., Waters, L. B. F. M., Chesneau, O., Malbet, F., Köhler, R., Jaffe, W., Ratzka, T., Dutrey, A., Preibisch, T., Graser, U., Bakker, E., Chagnon, G., Cotton, W. D., Dominik, C., Dullemond, C. P., Glazenborg-Kluttig, A. W., Glindemann, A., Henning, T., Hofmann, K.-H., de Jong, J., Lenzen, R., Ligori, S., Lopez, B., Meisner, J., Morel, S., Paresce, F., Pel, J.-W., Percheron, I., Perrin, G., Przygodda, F., Richichi, A., Schöller, M., Schuller, P., Stecklum, B., van den Ancker, M. E., von der Lühe, O., and Weigelt, G. Mid-infrared sizes of circumstellar disks around Herbig Ae/Be stars measured with MIDI on the VLTI. *Astronomy and Astrophysics*, 423:537–548, 2004.

[193] Acke, B., Bouwman, J., van Winckel, H., Waters, R., van Boekel, R., and van den Ancker, M. Probing the disk mineralogy and geometry of Herbig Ae/Be stars. Spitzer Proposal, 2005.

[194] van Boekel, R. 10 μm interferometry of disks around young stars. In *Journal of Physics Conference Series*, volume 131 of *Journal of Physics Conference Series*, 012023. 2008.

[195] Alonso-Albi, T., Fuente, A., Bachiller, R., Neri, R., Planesas, P., Testi, L., Berné, O., and Joblin, C. Circumstellar disks around Herbig Be stars. *Astronomy and Astrophysics*, 497:117–136, 2009.

[196] Whittet, D. C. B., editor. *Dust in the galactic environment*. 2003.

[197] Dullemond, C. P. and Dominik, C. Size-sorting dust grains in the surface layers of protoplanetary disks. *Astronomy and Astrophysics*, 487:205–209, 2008.

[198] Fujiyoshi, T., Wright, C. M., and Moore, T. J. T. Mid-infrared spectroscopy of SVS13: silicates, quartz and SiC in a protoplanetary disc. *Monthly Notices of the Royal Astronomical Society*, 451:3371–3384, 2015.

[199] Wright, C. M., Do Duy, T., and Lawson, W. Absorption at 11 μm in the interstellar medium and embedded sources: evidence for crystalline silicates. *Monthly Notices of the Royal Astronomical Society*, 457:1593–1625, 2016.

[200] Molster, F. J., Waters, L. B. F. M., and Kemper, F. The Mineralogy of Interstellar and Circumstellar Dust in Galaxies. In Henning, T., editor, *Lecture Notes in Physics, Berlin Springer Verlag*, volume 815 of *Lecture Notes in Physics, Berlin Springer Verlag*, 143–201. 2010.

[201] Vaidya, D. and Gupta, R. Infrared emission from the composite grains: effects of inclusions and porosities on the 10 and 18 μm features. *Astronomy & Astrophysics*, 528:A57, 2011.

[202] Aitken, D. K., Roche, P. F., Smith, C. H., James, S. D., and Hough, J. H. Infrared spectropolarimetry of AFGL 2591 - Evidence for an annealed grain component. *Monthly Notices of the Royal Astronomical Society*, 230:629–638, 1988.

[203] Li, M., Zhao, G., and Li, A. On the crystallinity of silicate dust in the interstellar medium. *Monthly Notices of the Royal Astronomical Society: Letters*, 382(1):L26–L29, 2007.

[204] Henning, T. Cosmic Silicates. *Annual Review of Astronomy and Astrophysics*, 48:21–46, 2010.

[205] Suh, K.-W. Dust Around Herbig AE/Be Stars. *Journal of Korean Astronomical Society*, 44:13–21, 2011.

[206] Kessler-Silacci, J., Augereau, J.-C., Dullemond, C. P., Geers, V., Lahuis, F., Evans, N. J., II, van Dishoeck, E. F., Blake, G. A., Boogert, A. C. A., Brown, J., Jørgensen, J. K., Knez, C., and Pontoppidan, K. M. c2d Spitzer IRS Spectra of Disks around T Tauri Stars. I. Silicate Emission and Grain Growth. *The Astrophysical Journal*, 639:275–291, 2006.

[207] Sicilia-Aguilar, A., Hartmann, L. W., Watson, D., Bohac, C., Henning, T., and Bouwman, J. Silicate Dust in Evolved Protoplanetary Disks: Growth, Sedimentation, and Accretion. *The Astrophysical Journal*, 659:1637–1660, 2007.

[208] Bouwman, J., Henning, T., Hillenbrand, L. A., Meyer, M. R., Pascucci, I., Carpenter, J., Hines, D., Kim, J. S., Silverstone, M. D., Hollenbach, D., and Wolf, S. The Formation and Evolution of Planetary Systems:

Grain Growth and Chemical Processing of Dust in T Tauri Systems. *The Astrophysical Journal*, 683:479–498, 2008.

[209] Meeus, G., Juhász, A., Henning, T., Bouwman, J., Chen, C., Lawson, W., Apai, D., Pascucci, I., and Sicilia-Aguilar, A. MBM 12: young protoplanetary discs at high galactic latitude. *Astronomy and Astrophysics*, 497:379–392, 2009.

[210] Olofsson, J., Augereau, J.-C., van Dishoeck, E. F., Merín, B., Lahuis, F., Kessler-Silacci, J., Dullemond, C. P., Oliveira, I., Blake, G. A., Boogert, A. C. A., Brown, J. M., Evans, N. J., II, Geers, V., Knez, C., Monin, J.-L., and Pontoppidan, K. C2D Spitzer-IRS spectra of disks around T Tauri stars. IV. Crystalline silicates. *Astronomy and Astrophysics*, 507:327–345, 2009.

[211] Watson, D. M., Leisenring, J. M., Furlan, E., Bohac, C. J., Sargent, B., Forrest, W. J., Calvet, N., Hartmann, L., Nordhaus, J. T., Green, J. D., Kim, K. H., Sloan, G. C., Chen, C. H., Keller, L. D., d'Alessio, P., Najita, J., Uchida, K. I., and Houck, J. R. Crystalline Silicates and Dust Processing in the Protoplanetary Disks of the Taurus Young Cluster. *The Astrophysical Journal Supplement*, 180:84–101, 2009.

[212] Bernatowicz, T. J., Croat, T. K., and Daulton, T. L. *Origin and Evolution of Carbonaceous Presolar Grains in Stellar Environments*, 109–126. 2006.

[213] Hofmeister, A. M., Pitman, K. M., Goncharov, A. F., and Speck, A. K. Optical Constants of Silicon Carbide for Astrophysical Applications. II. Extending Optical Functions from Infrared to Ultraviolet Using Single-Crystal Absorption Spectra. *The Astrophysical Journal*, 696:1502–1516, 2009.

[214] Orofino, V., Blanco, A., and Fonti, S. Silicon carbide: A possible component of the cometary dust. *Astronomy and Astrophysics*, 282:657–662, 1994.

[215] Messenger, S., Joswiak, D., Ito, M., Matrajt, G., and Brownlee, D. Discovery of presolar sic from comet wild-2. In *Lunar and Planetary Science Conference*, volume 40. 2009.

[216] Floss, C., Stadermann, F. J., Kearsley, A. T., Burchell, M. J., and Ong, W. The abundance of presolar grains in comet 81p/wild 2. *The Astrophysical Journal*, 763(2):140, 2013.

[217] Pott, J.-U., Eckart, A., Glindemann, A., Schödel, R., Viehmann, T., and Robberto, M. The enigma of gcirs 3-constraining the properties of the mid-infrared reference star of the central parsec of the milky way with optical long-baseline interferometry. *Astronomy and Astrophysics*, 480(1):115–131, 2008.

[218] Li, D., Telesco, C. M., Zhang, H., Wright, C. M., Pantin, E., Barnes, P. J., and Packham, C. Mid-infrared polarization of Herbig Ae/Be discs. *Monthly Notices of the Royal Astronomical Society*, 473:1427–1437, 2018.

[219] Zhang, H., Telesco, C. M., Pantin, E., Li, D., Wright, C. M., Mariñas, N., Barnes, P., Li, A., and Packham, C. The mid-infrared polarization of the herbig ae star wl 16: an interstellar origin? *Monthly Notices of the Royal Astronomical Society*, 465(3):2983–2990, 2017.

[220] Zhang, H., Telesco, C. M., Hoang, T., Li, A., Pantin, E., Wright, C. M., Li, D., and Barnes, P. Detection of Polarized Infrared Emission by Polycyclic Aromatic Hydrocarbons in the MWC 1080 Nebula. *The Astrophysical Journal*, 844:6, 2017.

[221] Li, D., Mariñas, N., and Telesco, C. M. The immediate environments of two herbig be stars: Mwc 1080 and hd 259431. *The Astrophysical Journal*, 796(2):74, 2014.

[222] Men'shchikov, A. B., Henning, T., and Fischer, O. Self-consistent Model of the Dusty Torus around HL Tauri. *The Astrophysical Journal*, 519:257–278, 1999.

[223] Speck, A. K., Barlow, M. J., and Skinner, C. J. The nature of the silicon carbide in carbon star outflows. *Monthly Notices of the Royal Astronomical Society*, 288:431–456, 1997.

[224] Bernatowicz, T., Fraundorf, G., Ming, T., Anders, E., Wopenka, B., Zinner, E., and Fraundorf, P. Evidence for interstellar SiC in the Murray carbonaceous meteorite. *Nature*, 330:728–730, 1987.

[225] Bradley, J. The Astromineralogy of Interplanetary Dust Particles. In Henning, T., editor, *Lecture Notes in Physics, Berlin Springer Verlag*, volume 815 of *Lecture Notes in Physics, Berlin Springer Verlag*, 259–276. 2010.

[226] Köhler, M. and Mann, I. Light-scattering models applied to circumstellar dust properties. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 89:453–460, 2004.

[227] Voshchinnikov, N. V., Il'in, V. B., and Henning, T. Modelling the optical properties of composite and porous interstellar grains. *Astronomy and Astrophysics*, 429:371–381, 2005.

[228] Weidenschilling, S. J. Formation of planetesimals and accretion of the terrestrial planets. *Space Science Reviews*, 92(1-2):295–310, 2000.

[229] Bradley, J. P. Interplanetary Dust Particles. *Treatise on Geochemistry*, 1:711, 2003.

[230] Poppe, T. Sintering of highly porous silica-particle samples: analogues of early solar-system aggregates. *Icarus*, 164(1):139–148, 2003.

[231] Gupta, R., Mukai, T., Vaidya, D. B., Sen, A. K., and Okada, Y. Interstellar extinction by spheroidal dust grains. *Astronomy and Astrophysics*, 441:555–561, 2005.

[232] Henning, T. and Stognienko, R. Porous grains and polarization of light: The silicate features. *Astronomy and Astrophysics*, 280:609–616, 1993.

[233] Draine, B. Scattering by interstellar dust grains. i. optical and ultraviolet. *The Astrophysical Journal*, 598(2):1017, 2003.

[234] Pégourié, B. et al. Optical properties of alpha silicon carbide. *Astronomy and Astrophysics*, 194:335, 1988.

[235] Draine, B. T. and Flatau, P. J. User Guide for the Discrete Dipole Approximation Code DDSCAT.6.0. *ArXiv Astrophysics e-prints*, 2003.

[236] Mishchenko, M. I., Travis, L. D., and Lacis, A. A. *Scattering, absorption, and emission of light by small particles*. 2002.

[237] Vaidya, D. B. and Gupta, R. Composite grains: Effects of porosity and inclusions on the silicate feature. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 110:1726–1732, 2009.

[238] Beckwith, S. V. W., Sargent, A. I., Chini, R. S., and Guesten, R. A survey for circumstellar disks around young stellar objects. *Astronomical Journal*, 99:924–945, 1990.

[239] Honda, M., Kataza, H., Okamoto, Y. K., Miyata, T., Yamashita, T., Sako, S., Takubo, S., and Onaka, T. Detection of Crystalline Silicates around the T Tauri Star Hen 3-600A. *The Astrophysical Journal Letters*, 585:L59–L63, 2003.

[240] Suh, K.-W. Dust Around Herbig AE/Be Stars. *Journal of Korean Astronomical Society*, 44:13–21, 2011.

[241] Poteet, C. A., Megeath, S. T., Watson, D. M., Calvet, N., Remming, I. S., McClure, M. K., Sargent, B. A., Fischer, W. J., Furlan, E., Allen, L. E., Bjorkman, J. E., Hartmann, L., Muzerolle, J., Tobin, J. J., and Ali, B. A Spitzer Infrared Spectrograph Detection of Crystalline Silicates in a Protostellar Envelope. *The Astrophysical Journal Letters*, 733:L32, 2011.

[242] Mathis, J. S., Rumpl, W., and Nordsieck, K. H. The size distribution of interstellar grains. *The Astrophysical Journal*, 217:425–433, 1977.

[243] Hong, S. S. and Greenberg, J. M. A unified model of interstellar grains - A connection between alignment efficiency, grain model size, and cosmic abundance. *Astronomy and Astrophysics*, 88:194–202, 1980.

[244] Duley, W. W., Jones, A. P., and Williams, D. A. Hydrogenated amorphous carbon-coated silicate particles as a source of interstellar extinction. *Monthly Notices of the Royal Astronomical Society*, 236:709–725, 1989.

[245] Zubko, V. G. On the Model of Dust in the Small Magellanic Cloud. *The Astrophysical Journall*, 513:L29–L32, 1999.

[246] Draine, B. T. and Li, A. Infrared Emission from Interstellar Dust. I. Stochastic Heating of Small Grains. *The Astrophysical Journal*, 551:807–824, 2001.

[247] Köhler, M., Jones, A., and Ysard, N. A hidden reservoir of Fe/FeS in interstellar silicates? *Astronomy and Astrophysics*, 565:L9, 2014.

[248] Allamandola, L. J., Hudgins, D. M., and Sandford, S. A. Modeling the Unidentified Infrared Emission with Combinations of Polycyclic Aromatic Hydrocarbons. *The Astrophysical Journall*, 511:L115–L119, 1999.

[249] Menten, K. M., Reid, M. J., Forbrich, J., and Brunthaler, A. The distance to the Orion Nebula. *Astronomy and Astrophysics*, 474:515–520, 2007.

[250] Herbig, G. H. and Terndrup, D. M. The Trapezium cluster of the Orion nebula. *The Astrophysical Journal*, 307:609–618, 1986.

[251] Waters, L. B. F. M., Beintema, D. A., Zijlstra, A. A., de Koter, A., Molster, F. J., Bouwman, J., de Jong, T., Pottasch, S. R., and de Graauw, T. Crystalline silicates in planetary nebulae with [WC] central stars. *Astronomy and Astrophysics*, 331:L61–L64, 1998.

[252] Shu, F. H., Adams, F. C., and Lizano, S. Star formation in molecular clouds - Observation and theory. *Annual Review of Astronomy and Astrophysics*, 25:23–81, 1987.

[253] Subramaniam, A., Tandon, S. N., Hutchings, J., Ghosh, S. K., George, K., Girish, V., Kamath, P. U., Kathiravan, S., Kumar, A., Lancelot, J. P., Mahesh, P. K., Mohan, R., Murthy, J., Nagabhushana, S., Pati, A. K., Postma, J., Rao, N. K., Sankarasubramanian, K., Sreekumar, P., Sriram, S., Stalin, C. S., Sutaria, F., Sreedhar, Y. H., Barve, I. V., Mondal, C., and Sahu, S. In-orbit performance of UVIT on ASTROSAT. In *Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray*, volume 9905 of *Proceedings of the SPIE*, 99051F. 2016.

[254] Ravichandran, S., Preethi, K., Safonova, M., and Murthy, J. Large scale extinction maps with UVIT. *Astrophysics and Space Science*, 344:361–364, 2013.