

Fig A1: TIC of *S. dimorphus* Toluene fraction

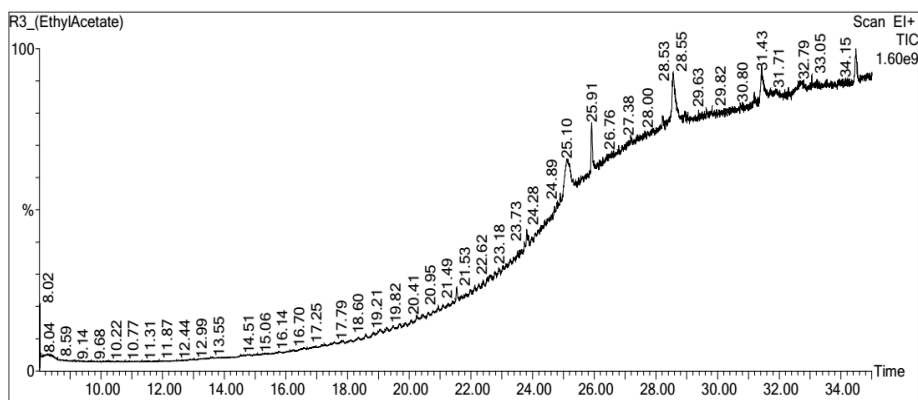


Fig A2: TIC of *S. dimorphus* ethyl-acteate fraction

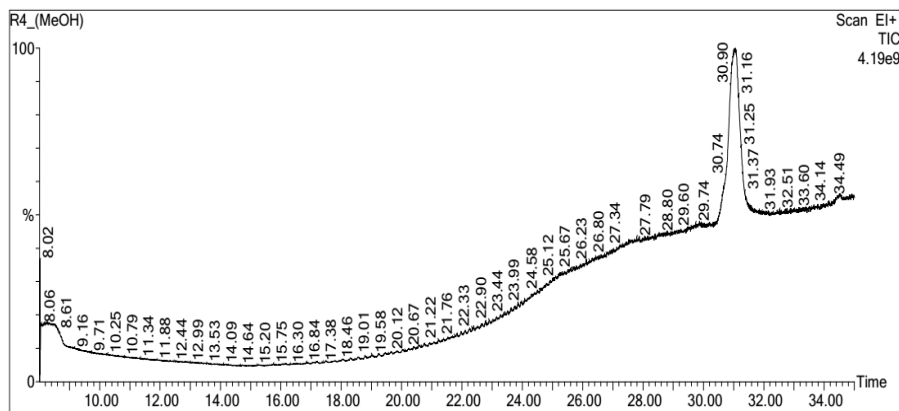
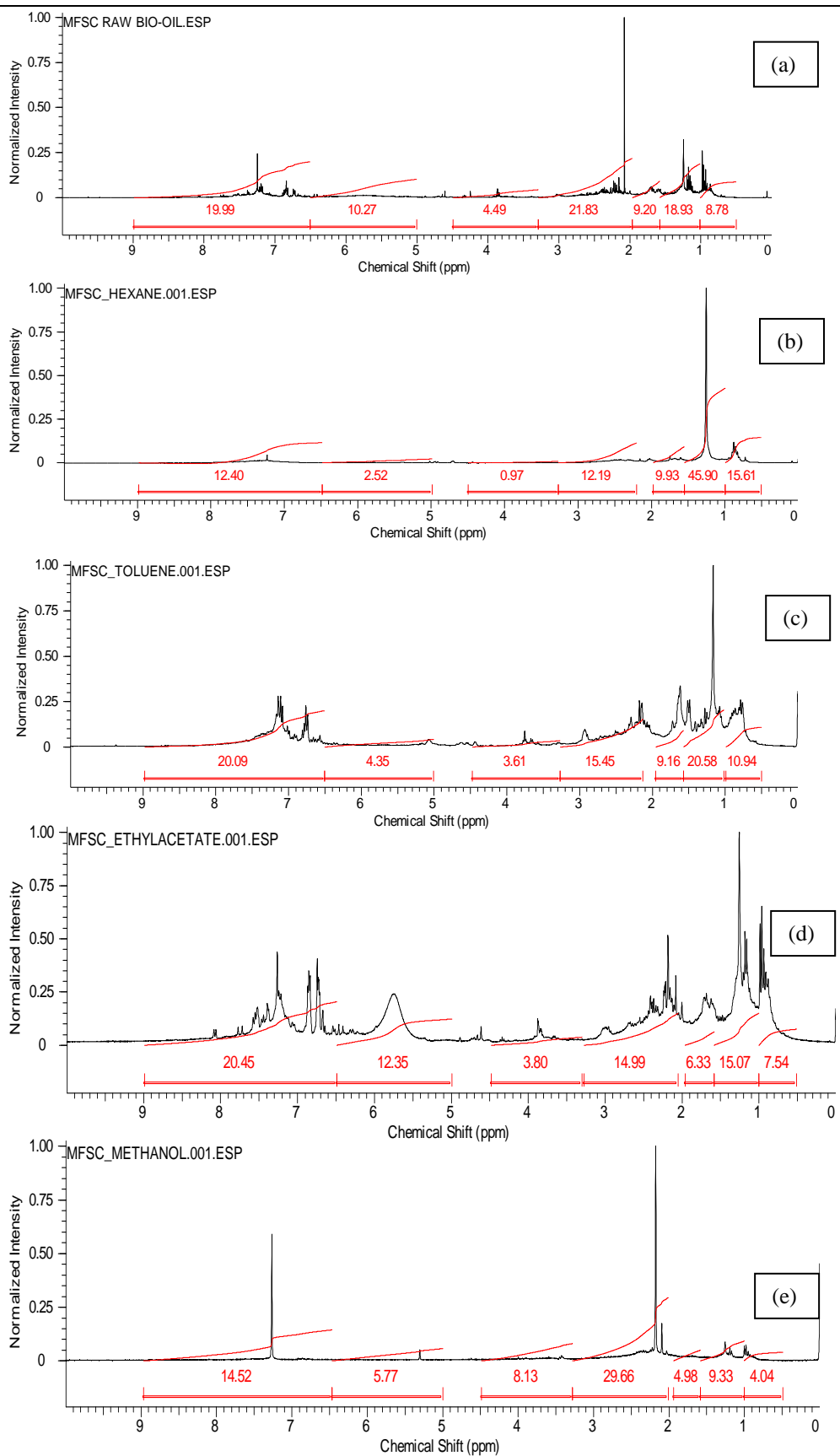
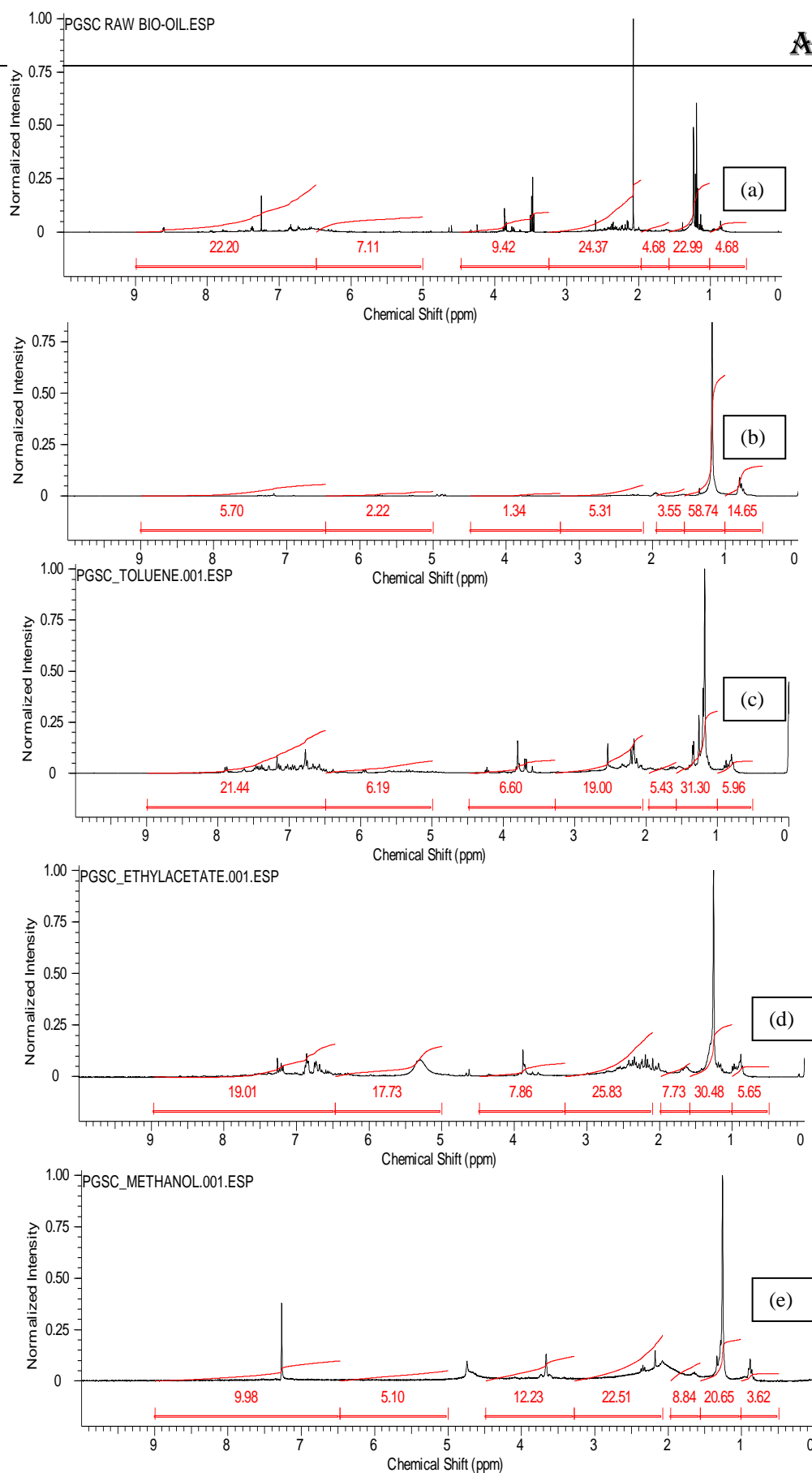


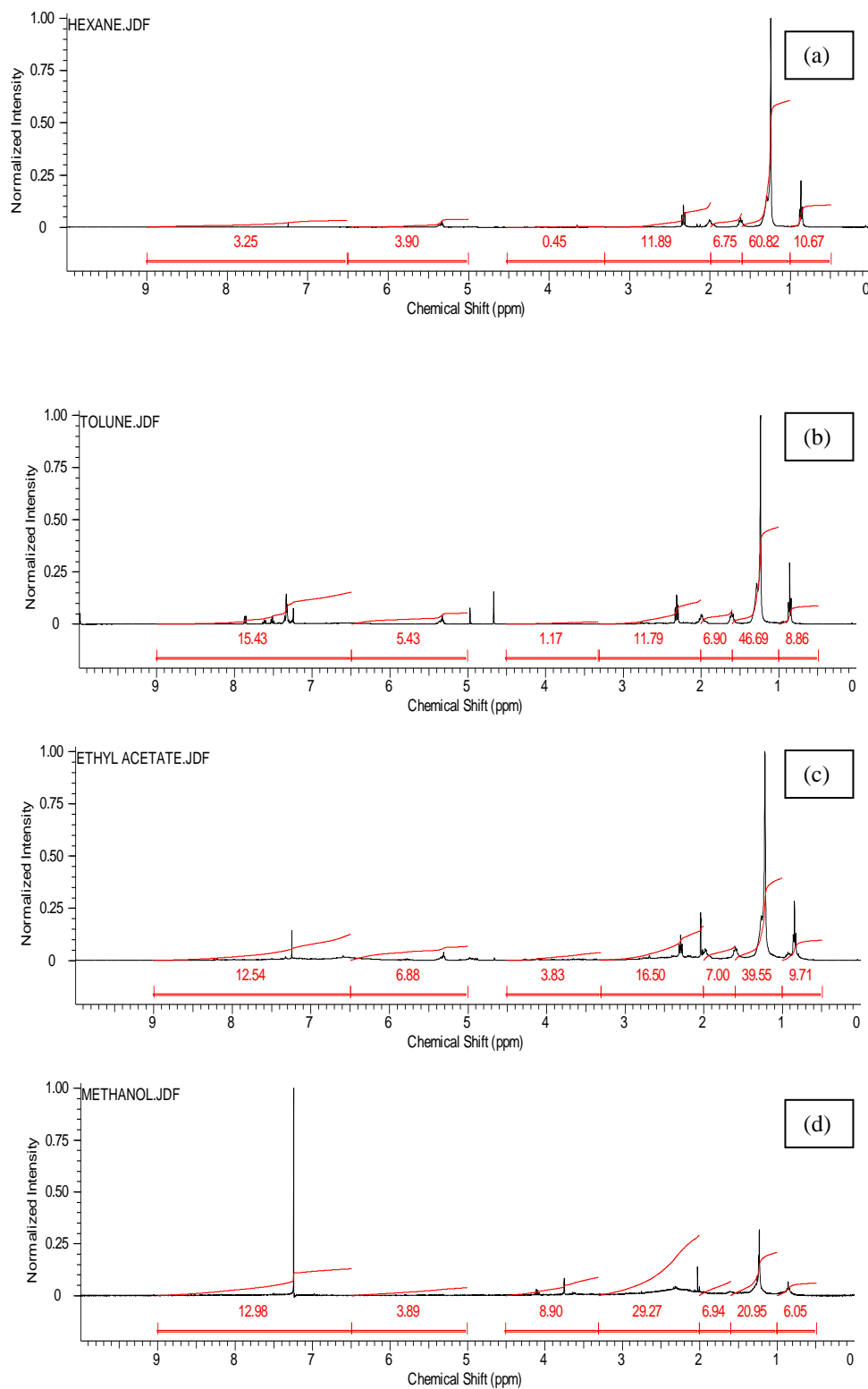
Fig A3: TIC of *S. dimorphus* MeOH fraction



Figs. A4: ¹H NMR spectra of MFSC biooil (a) unfractionated biooil (b) n-hexane (c) toluene (d) ethyl-acetate and (e) methanol sub-fractions



Figs. A5: ^1H NMR spectra of PGSC biooil (a) unfractionated biooil (b) n-hexane (c) toluene (d) ethyl-acetate and (e) methanol sub-fractions



Figs A6: ^1H NMR spectra of *S. dimorphus* biooil (a) n-hexane (b) toluene (c) ethyl-acetate and (d) methanol sub-fractions

Journal Papers:

1. **Bordoloi, N.**, Narzari, R., Chutia, R. S., Bhaskar, T. Kataki, R. (2015). “Pyrolysis of *Mesua ferrea* and *Pongamia glabra* seed cover: Characterization of bio-oil and its sub-fractions.” *Bioresource Technology*, 178: 83–89.
2. **Bordoloi, N.**, Narzari, R., Sut, D., Saikia, R., Chutia, R.S., Kataki, R. (2016). Characterization of bio-oil and its sub-fractions from pyrolysis of *Scenedesmus dimorphus*. *Renewable Energy*, 98: 245-253.
3. Sut, D., **Bordoloi, N.**, Narzari., R., Chutia, R.S., Kataki., R. (2016). Complete utilization of non-edible oil seeds of *Cascabela thevetia* through a cascade of approaches for biofuel and by-products. *Bioresource Technology*, 213: 111-120.
4. Upadhaya, K., Watham, T., **Bordoloi, N.**, Kataki, R. (2017). Trees as sources of livelihood and fuel wood: A case study of an eastern Himalayan village. *Energy Sources, Part A: Recovery, Utilization and Environmental Effect*, 39 (4): 398–405.
5. Chutia, S., Narzari, R., **Bordoloi, N.**, Saikia, R., Gogoi, L., Sut, D., Bhuyan, N., Kataki, R. (2017). Pyrolysis of Dried Black Liquor Solids and Characterization of the Biochar and Biooil. *Materials Today Proceedings* (**accepted**).
6. Basumatary, V., Saikia, R., Narzari, R., **Bordoloi, N.**, Gogoi, L., Sut, D., Bhuyan, N., Kataki, R. (2017). “Tea factory waste as a feedstock for thermochemical conversion to biofuel and biomaterial. *Materials Today Proceedings* (**accepted**).
7. Gogoi, D., **Bordoloi, N.**, R., Goswami, Narzari, R., Saikia, R., Sut, D., Gogoi, L., Kataki, R. (2017). “Effect of torrefaction on yield and quality of pyrolytic products of Arecanut Husk: an agro processing wastes”. *Bioresource Technology*. 242: 36-44.
8. Narzari, R., **Bordoloi, N.**, Kataki, R. (2017). “Fabrication and evaluation of physicochemical development of bio-carbons obtained from valorization of biowastes”. *Bioresource Technology*. 242: 324-328.

9. **Bordoloi, N.**, Goswami, R., Kumar, M., Kataki, R. (2017). “Biosorption of Co (II) from aqueous solution using algal biochar: Kinetics and isotherm studies”. *Bioresource Technology*. 244: 1465-1469.
10. **Bordoloi, N.**, Dey, M. D., Mukhopadhyay, R., Kataki, R. (2018). “Adsorption of Methylene blue and Rhodamine B by using biochar derived from *Pongamia glabra* seed cover” *Water Science and Technology*. 77(3): 638-646.

Book Chapters:

1. Konwar, L. J., Mikkola, J. P., **Bordoloi, N.**, Saikia, R., Chutia, R. S., and Kataki, R., Side-streams from bioenergy and biorefinery complexes as a resource for circular bio-economy. In: **Waste Biorefinery: Potential and Perspectives**, (Eds. Pandey, A., Bhaskar, T., Venkata Mohan, S., Khanal, S., and Lee, Duu-Jong), Elsevier, 2018, pp. 85-125 (ISBN 978-044-46-3992-9).
2. Kataki, R. **Bordoloi, N.**, Saikia, R. Sut, D., Narzari, R., Gogoi, L. and Bhuyan, N. Wastes valorization to Fuel and chemicals through Pyrolysis: Technology, Feedstock, Products, and Economic Analysis. In: **Waste to Wealth** (Eds. Singhanian, R.R., Agarwal, R.A., Kumar, R.P., Sukumaran, R.K.), Springer, 2018, pp. 477-514 (ISBN 978-981-10-7431-8).
3. Kataki, R., Hiloidhari, M., Sut, D., and **Bordoloi, N.** Co-generation of heat and electricity from biomass in India: Current status and future challenges. In: **Sustainable Biofuels Development in India**, (Eds. Chandel, A., and Sukumaran, R.), Springer, 2017, pp. 87-133 (ISBN 978-3-319-50217-5).
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5. Kataki, R., Chutia, R.S., **Bordoloi, N.**, Saikia, R., Sut, D., Narzari, R., Gogoi, L. Nikhil, G.N., Sarkar, O., Venkata Mohan, S. Biohydrogen production scenario for Asian countries. In: **Bio-hydrogen Production: Sustainability of Current**

Technology and Future Perspective, (Eds. Singh, A., and Rathore, D.), Springer, 2016, pp. 207-235 (ISBN: 978-81-322-3575-0).

6. Kataki, R., Goswami, K., **Bordoloi, N.**, Saikia, R. Sut, D., Narzari, R. and Gogoi, L. Biomass Resources for Biofuel Production in North-East India. In: **Bio-prospecting of Indigenous Bio-resources of North East India**, (Ed. Purkayastha, J.), Springer, 2016, pp. 127-151 (ISBN: 978-981-10-0619-7).
7. Kataki, R., Chutia, R. S., Mishra, M., **Bordoloi, N.**, Saikia, R. and Bhaskar, T. Feedstock suitability for thermochemical processes. In: **Advances in thermochemical conversion of biomass**, (Eds. Pandey, A., Bhaskar, T., Sukumaran, R., and Stocker, M.), Elsevier, 2015, pp. 31-74 (ISBN: 978-0-444-63289-0).
8. Narzari, R., **Bordoloi, N.**, Chutia, R.S., Borkotoki, B., Gogoi, N., Bora, A. and Kataki, R. Biochar-an overview on its production, properties and potential benefits. In: **Biology, Biotechnology and Sustainable Development**, (Ed. Choudhury, H.), Research India Publications, Delhi, 2015, pp. 13-40 (ISBN: 978-93-84443-19-1).