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List of Abbreviations

%	Percentage
$(R_d)_{ANN}$	Mean relative deviation of ANN
$(R_d)_{RSM}$	Mean relative deviation of RMS
a_w	Water activity
'u', 'w', 'Th' and 'To'	Matrices of ANN modeling
µm	Micrometer
Å	Degree Angstrom
a*	Redness
A, B, C, K	MSI model constants
a, b, c, k, m, n	Drying model coefficient
a.u.	arbitrary unit
AAA	Amino acid analyzer
abs	Absolute temperature (K)
AMG	Amyloglucosidase
ANN	artificial neural networks
ANOVA	Analysis of variance
b'	Cell path
b*	Yellowness
BV	Breakdown viscosity
CE	Coefficient estimate
CF	Cellulose fiber
cm^3	Centimeter cube
CNF	Cellulose nanofiber
CNP	Cellulose nanopaper
cP	centipoise
CV	coefficient of variation
D_0	Pre-exponential factor of the Arrhenius equation (m^2/s)
DAE	days after emergence of banana inflorescence
db	Dry basis
D_{eff}	Effective moisture diffusivity (m^2/s)

DF	Degree of freedom
DLS	Dynamic light scattering
DPPH	2,2 diphenyl 1-picrylhydrazyl
DSC	Differential scanning calorimetry
DTG	Derivative of TGA
E_a	Activation factor (kJ/mol)
EMC	Equilibrium moisture content
Eq.	Equation
F	Fitness function
F.C.	Folin-Ciocalteu
FAO	Food and Agriculture Organization of the United Nations
FT-IR	Fourier transform infrared spectroscopy
FV	Final viscosity
g	gram
GA	Genetic algorithm
GAE	Gallic acid equivalents
GI	glycaemic index
GLC	Gas liquid chromatography
GOPOD	Glucose oxidase/peroxidase reagent
h	hour
HG	Hygroscopicity
HPLC	High performance liquid chromatography
HV	Hold viscosity
I_c	crystallinity index
ICP-OES	inductively coupled plasma optical emission spectrometry
KF	Culinary banana flour
kHz	kilohertz
kv	kilovolt
L*	Lightness
L	Slab thickness (mm)
L_c	loading capacity
LSD	Least Significant Difference
M	Molar

mA	milliampere
M_a	Average moisture content ($kg_{water}/kg_{dry\ matter}$)
M_e	Equilibrium moisture content ($kg_{water}/kg_{dry\ matter}$)
M_i	Initial moisture content ($kg_{water}/kg_{dry\ matter}$)
min	minute
ml	milliliter
mm	millimeter
MPa	megapascal
MR	Moisture ratio (dimensionless)
MSI	Moisture sorption isotherm
M_t	Moisture content at time t ($kg_{water}/kg_{dry\ matter}$)
mV	millivolt
N	Normal
N	Newton
ND	Not detected
nm	nanometer
NMR	Nuclear magnetic resonance
NRS	Non reducing sugars
OI	Optical Index
pH	Negative log of hydrogen ions
PL	Photoluminescence
pmol	Picomole
ppm	Parts per million
pps	Points per second
PRESS	Predicted error sum
PT	Pasting temperature
PV	Peak viscosity
q_{st}	Net isosteric heat of sorption
R	Ideal gas constant (8.314 kJ/mol)
R^2	Coefficient of determination
R_d	Mean relative deviation
R_{EL}	relative elasticity
RH	Relative humidity

RMSE	Root mean square error
rpm	Revolutions per minute
RS	Reducing sugars
RS	Resistant starch
RSM	Response surface methodology
s	seconds
s.s.	Stainless steel
SA	scavenging activity
SD	Standard deviation
SE	Standard error
SEM	Microstructure Study
SOP	Second order polynomial
SV	Setback viscosity
t	Drying time (min)
T	Drying air temperature (^{o}C)
TC	Total carotenoids
TEM	Transmission electron microscopy
TFC	Total flavonoids content
TGA	Thermogravimetric analysis
TPC	Total polyphenols content
t_R	Retention time
TSS	Total soluble sugars
UV	Ultra violet
v/v	Volume by volume
W	Watt
w/v	Weight by volume
wb	Wet basis
WHO	World Health Organization
X	Independent variable
X_1	Optimization drying temperatures
X_2	Optimization sample slice thickness
X_3	Optimization pretreatment conditions
XRD	X-ray Diffraction

Y	Dependent variable
Y_H	Hardness
Y_{NEB}	Nonenzymatic browning
Y_{RR}	Rehydration ratio
Y_{SA}	Scavenging activity
Δy	Computed values of ANN output
θ	Theta
μg/ml	Microgram per milliliter
χ^2	Chi-square