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ABBREVATIONS AND SYMBOLS

ABTSO+ Radical form of 2,2'-azino-bis(3-ethylbenzothiazoline-6-

sulfonic acid)

C Carbon

CC Column chromatography

°c Degree Celsius

cm Centimeter

 $CDCI_3$ Deuterochloroform

d doublet

dd doublet of doublet

DEPT Distortionless enhancement by polarization transfer

EIMS electron impact mass spectra

EtOAc ethyl acetate

EtOH Ethanol

FRAP Ferric reducing ability power

G Gram

¹H-NMR Proton nuclear magnetic resonance

HMBC H-detected heteronuclear multiple bond coherence **HSQC**

¹H-detected high sensitive quantum coherence Hz

Hertz

i.d. · Internal diameter

IR Infrared spectroscopy

Coupling constant

LC-MS liquid chromatography mass spectra

m Multiplet

MeOH Methanol MHz

Megahertz mMMilimolar

m.p. Melting point m/z A value of mass divided by charge

NMR Nuclear magnetic resonance spectroscopy

2D-NMR Two dimensional nuclear magnetic resonance

R² Coefficient of determination

s Singlet

TLC Thin layer chromatography

TMS Tetramethylsilane

UV Ultraviolet

δ Chemical shift relative to TMS