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List of Abbreviation

γ -	Alpha
τ	is the relaxation time
σ	conductivity
ϵ_{∞}	is the dielectric constant
ϵ_h	High frequency limiting permittivity
σ_L	low frequency limiting conductivity
ϵ_s	is the static,
A	area affected sound
A	surface area
ACTH	Adrenocorticotropic hormone
Ag Cl	Silver chloride
ANS	autonomic nervous system
C	capacitance
CAT	catalase
CBC	Complete blood count
CNS	Center nerves system
CSF	Cerebrospinal fluid
CT	Computed tomography
d	distance
DA	dopamine
DTPA	Diethylenetriaminepent acetic acid
E	harmonic field
EPI	echo planar imaging
ET	Echo Time
F/ m	Farad / meter
fMRI	magnetic resonance imaging function
G	conductance
GHz	Giga Hertz
GOD	Glucose oxidase
GRE	Gradient Echo
H ₂ O ₂	Hydrogen peroxide
Hb	Hemoglobin

HPA	hypothalamic-pituitary- adrenal
Ht	Hematocrit
Hz	Hertz
kHz	kiloe Hertz
Lp	Sound pressuar level
LPO	lipid peroxidation
Lw	Sound power level
MCH	Mean corpuscular hemoglobin
MCHC	Mean corpuscular hemoglobin concentration
MCV	Mean corpuscular volume
MDA	malonyldialdehyte
MHz	Miga Hertz
Mn- SOD	present in mitochondria and peroxisomes
MR	magnetic resonance
NO	nitric oxide
O₂⁻	Superoxide anion radicals
P	instantaneous pressure as the sound wave
P	sound power
P₁	an absolute value of a power reference
P₂	absolute value of the power under evaluation
PA	<u>Public Address</u>
PBS	Sodium phosphate buffer saline.
PLT	Platelets
Pref	the reference power
R	Resistance
RBCs	red blood cells count
RCL meter	Capacitance , resistance and inductance
RF	radio frequency
rms	root mean square
RNS	reactive nitrogen species
ROS	reactive oxygen species
SE	Spin – echo
SOD	Superoxide dismutase

<u>SOD1</u>	Superoxide dismutase located in the <u>cytoplasm</u>
<u>SOD2</u>	Superoxide dismutase in the <u>mitochondria</u>
<u>SOD3</u>	Superoxide dismutase is <u>extracellular</u>
SPL	Sound pressure level
T1	(spin – lattice relaxation) time constant
T1	90 degree flip angle provides T1 – Weighting
T1WIs	T1 – weighted images
T2	coherence (spin – spin relaxation)
T2	(a low flip angle typical 10 -30 degree) produces a T2 – weighted images
T2WIs	T 2 – Weighted images
TBA	thioarbituric acid
TR	Repetition time
U.S	United states
USA	United States America
v	velocity
WBCs	white blood cells count
WHO	World Health Organization
z	impedance
α	Gamma
β	Beta
ϵ	is the relative complex permittivity of the material
ϵ'	is the dielectric constant
ϵ''	is the loss factor of the material
ϵ_0	is the permittivity of free space
ρ	medium
σ_s	the dc conductivity of the material
ω	the angular frequency of the applied field
BDNF	Brain derived neurotrophic factor