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Potential Impact of a Synthesized Nanocomposite Material in Treatment of Different Forms of Liver Injury in Rats

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التأثير المحتمل لمركب مخلق بحجم النانو في علاج أنواع مختلفة من إصابات الكبد في الجرذان

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List of Abbreviations

8-OHdG	8-Hydroxy deoxy -guanosine
ADH	Alcohol dehydrogenase
AFP	Alpha fetoprotein
ALD	Alcoholic liver disease
ALT	Alanine aminotransferase
Apaf-1	Apoptosis protease activity factor-1
BTCP	Biphasic Tricalcium phosphate
CAT	Catalase
CCl₄	Carbon tetrachloride
Cf	Calforium
CNFs	CNFs carbon nanofibers
CNTs	Carbon nanotubes
CP	Calcium phosphate
Cs	Cesium
CT	X-ray computed tomography
CTL	Cytotoxic T-lymphocytes
Cu/Zn SOD	Copper/Zinc superoxide dismutase
DEN	Diethylnitrosamine
ECM	Extracellular matrix
ER	Endoplasmic reticulum
GGT	Gamma glutamate transferase
GK	Glucose kinase
GLUT-1	Glucose transporter-1
GPx	Glutathione peroxidase
GSH	Reduced glutathione
GSNO	S-nitroso-glutathione
H-3	Titanium
HAV	Hepatitis A Virus
HBV	Hepatitis B Virus
HCC	Hepatocellular carcinoma
HCV	Hepatitis C Virus
HDV	Hepatitis D Virus
HEV	Hepatitis E Virus
HFV	Hepatitis F Virus

HGF	Hepatocyte growth factor
HGV	Hepatitis G Virus
HSCs	Hepatic Stellate cells
HSP	Heat shock protein
HSR	Heat shock response
I	Iodine
IFN-γ	Interferon- γ
IκB	Inhibitor of nuclear factor κ B
IL	Interleukin
iNO	Nitric oxide synthase
Ir	Iridium
KC	Kupffer cells
LDL	Low density lipoprotein
LET	Linear energy transfer
LETs	Liver function tests
LPO	Lipid peroxidation
MDA	Malondialdehyde
Mn SOD	Manganese superoxide dismutase
MT-MMPs	Membrane -type matrix metalloproteinases
NAFLD	Non-alcoholic fatty liver disease
Nano-TCP	Nano-ticalcium phosphate
NFKB	Nuclear factor κ B
NK	Natural killer cells
NKT	Natural killer T cells
NO	Nitric oxide
NPs	Nanoparticles
PB	Phenobarbital
Pb	Lead
PCD	Programmed cell death
PDGF	Platelet –derived growth factor
PGA	Poly glycolic acid
PLA	Poly lactic acid
PLGA	Poly (D,L-Lactid-coglycolid)
Pu	Putonium
QD	Quantum dot
Ra	Radium
RBE	Reactive biological effectiveness
ROS	Reactive oxygen species
SEC	Sinusoidal endothelial cells

SH-	Sulphydryl group
SOD	Superoxide dismutase
SP1	Signal specificity Protein
Sr	Strontium
STM	Scanning tunnel microscope
TCP	Tricalcium phosphate
TEM	Transmission electron microscope
TGF-β1	Transforming growth factor- β 1
TIMP	Tissue inhibitor of metalloproteinase
TNF	Tumor necrosis factor
TNFR-1	Tumor necrosis factor receptor-1
U	Uranium
XRD	X-ray diffraction

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