Appendix C - Results of Research Reviewed Compared to Evaluation Criteria

Research Reviewed	Evaluation Criteria	Sensitivity	Selectivity	Inst Det	Simult Det	Portable	Reusable	Varied Env	Det in Water	Det in Air	Organic	Gas	Metal	Biological	Radiological	Physical
Type of Nanotech	**Sub-Type**															
Electrochemical	Film - 2D AuNP Array[1]	X	X	X	X	X	X			X	X					
Electrochemical	Film - Au/PtNP/Graphene[2]	X	X	X				X		X	X					
Electrochemical	Film - AuNP[3]	X	X	X		X	X				X					
Electrochemical	Film - AuNP[4]	X	X	X		X					X					
Electrochemical	Film - AuNP Interdig Capacitive[5]	X	X	X	X									X		
Electrochemical	Film - AuNP Ligands[6]	X	X					X		X	X					
Electrochemical	Film - AuNP Ligands[7]					X	X	X		X	X					
Electrochemical	Film - AuNP SW Stripping[8]	X	X	X	X			X	X				X			
Electrochemical	Film - CuNP Monolayer-Capped[9]	X					X	X		X	X					
Electrochemical	Film - Dodecane Core/Shell[10]						X	X			X					
Electrochemical	Film - MIP-NPGL[11]	X	X	X	X	X	X		X	X	X	X	X	X		
Electrochemical	Film - MCNPs[12]	X	X	X			X			X				X		
Electrochemical	Film - SAMMS-SWASV[13]	X	X	X	X								X			
Electrochemical	Film - Trithiol Capped[14]	X									X					
Electrochemical	Film - Tyrosine/AuNP/T-NH2[15]	X	X	X				X	X		X					
Electrochemical	Film - Vapor Droplet Interaction[16]	X	X					X		X	X					
Electrochemical	Film - Vapor IDA Self-Assem	X						X								
Electrochemical	Nanorod - AuNP Fiber Optic[18]	X	X				X		X			X				
Electrochemical	Nanotube - Single Walled Carbon[19]	X	X								X	X				
Electrochemical	Nanowire - Silicon[20]	X	X	X		X	X	X		X	X	X		X		
Electrochemical	Nanowire - Silicon[21]	X	X	X			X									
Electrochemical	Nanowire - Silicon (B-Doped)[22]	X	X	X			X		X				X	X		
Electrochemical	Nanowire - Silicon V Array Porous[23]	X	X	X	X	X	X				X					
Electrochemical	Nanowire - ZnO on ITO SiO/C[24]	X								X	X					
Electrochemical	Thermal Actuator Si/Cr/Au Wafer[25]	X	X	X		X	X									X
Electrochemical	Film - AuNPs Lateral Flow Strip[26]								X		X					
Electrochemical	Film - Cat-Spec Funct[27]								X		X					
Optical	Colorimetric[28]								X				X			
Optical	Colorimetric - Agg Direct Sen[29]							X	X		X					
Optical	Colorimetric - Immunoassay Strip[30]								X					X		
Optical	Colorimetric - Ligand Based[31]	X	X	X					X		X		X			
Optical	Colorimetric - Ligand Based[32]	X	X	X				X	X		X					
Optical	Colorimetric - Ligand Based[33]	X	X	X						X			X			
Optical	Colorimetric - Ligand Based[34]	X	X	X		X			X					X		
Optical	Colorimetric - Lig Cysteine AuNP[35]								X					X		
Optical	Colorimetric - Non-crosslinking[36]								X		X					
Optical	Colorimetric - AuNP Conj Polymer[37]	X		X		X			X		X		X	X		
Optical	Colorimetric Aptamer AuNP Conj[38]	X	X	X					X					X		
Optical	Colorimetric - Crosslinking[39]								X		X					
Optical	Optical Sensor[40]								X			X				
Optical	Optical Sensor - SS DNA[41]	X	X						X				X			
Optical	Optical Tweezers - Pos Track	X	X						X							
Optical	SERS - AgNP[43]	X	X	X	X	X			X					X		
Optical	SERS - AgNP - MIP[44]	X	X	X							X					
Optical	SERS - AuNP substrate[45]	X	X						X		X					
Optical	SERS - Ga2O3/Ag Nanowire[46]	X							X		X					
Optical	SERS - Optical SiO2 -AuNP[47]	X	X	X								X				
Optical	SPR - Capped AuNPs[48]	X	X			X										

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