

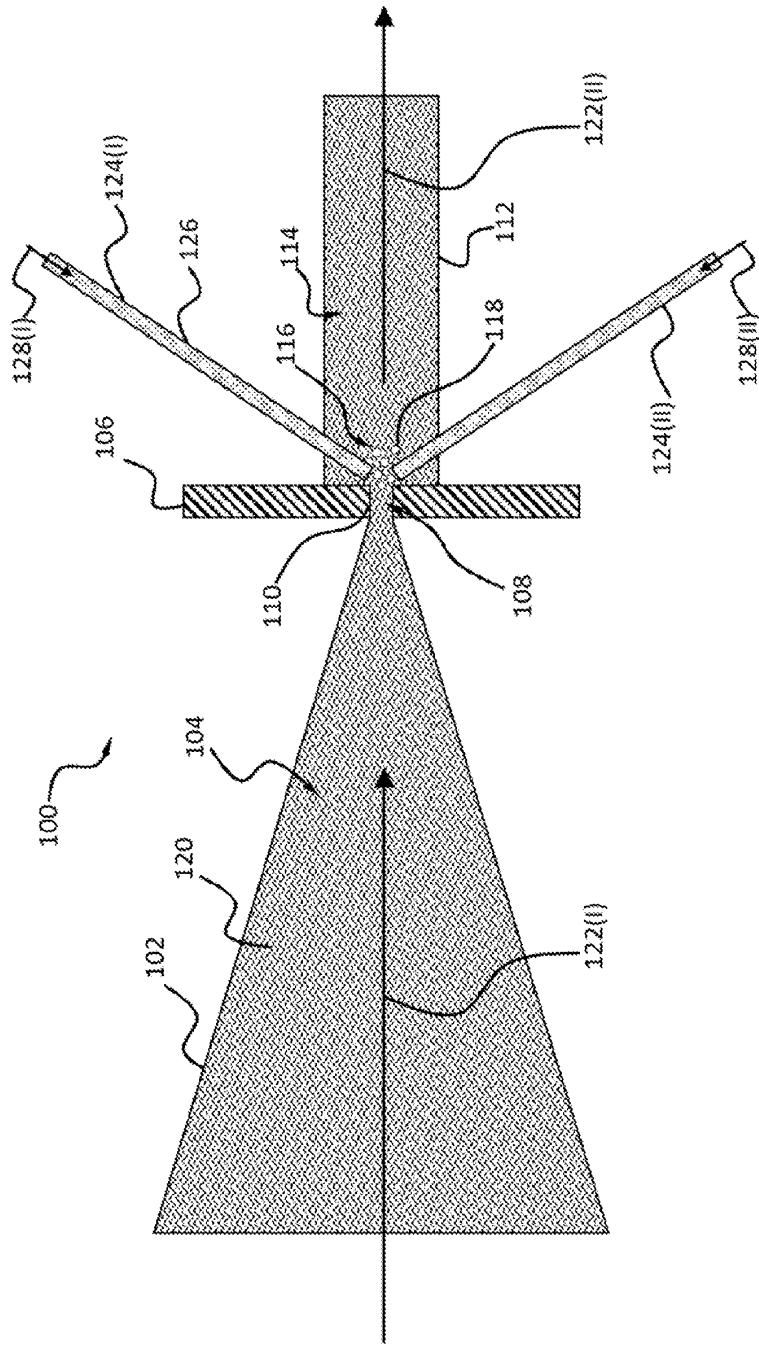


FIG. 1

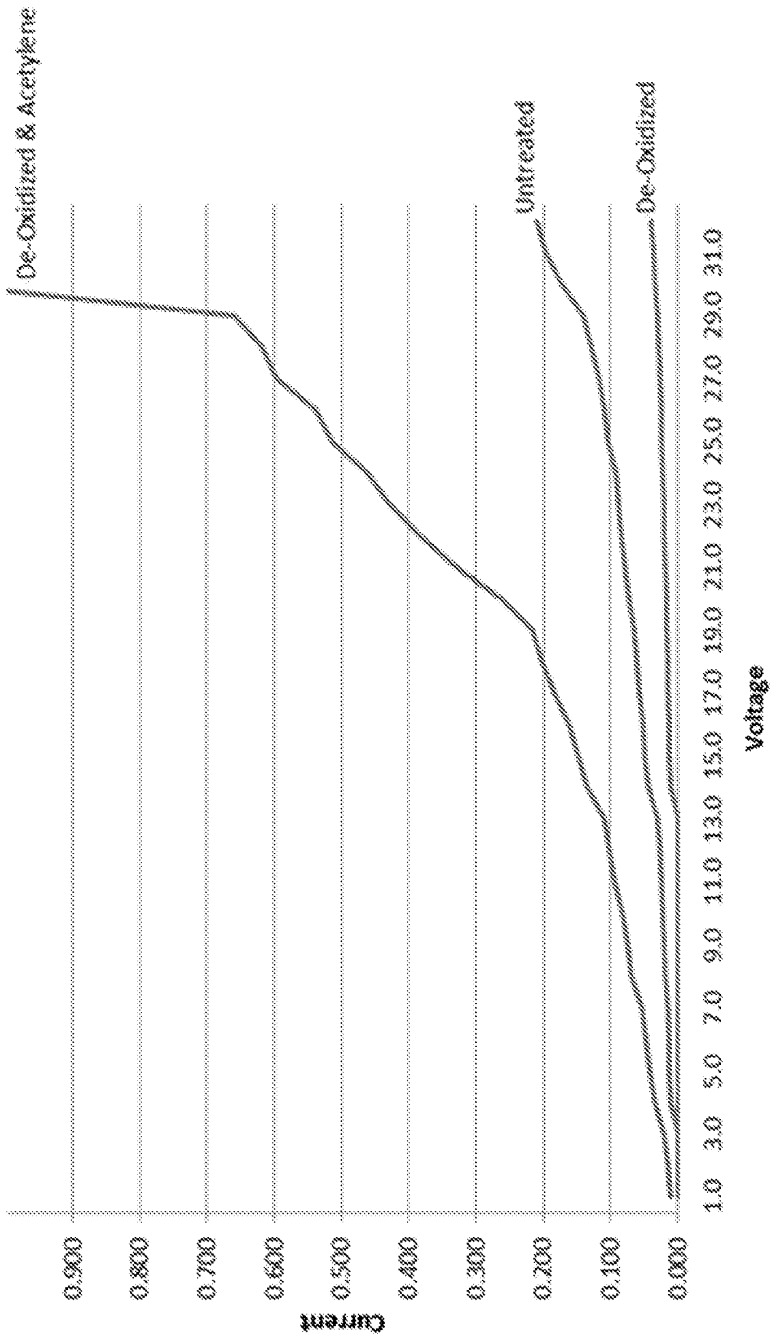
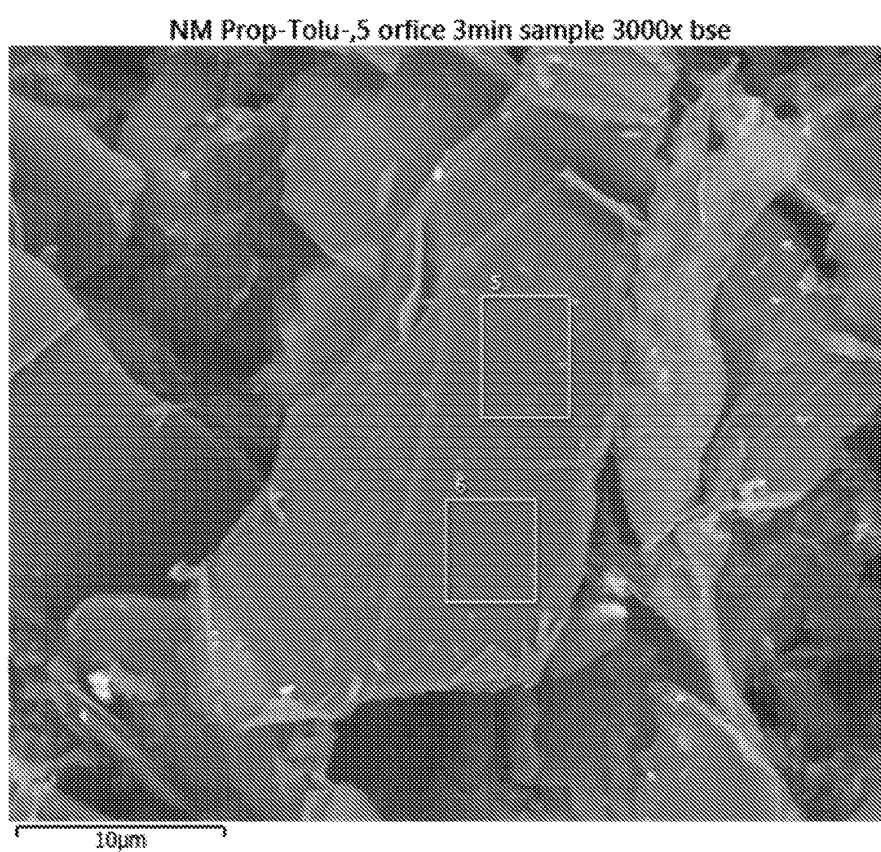


FIG. 2

**FIG. 3**

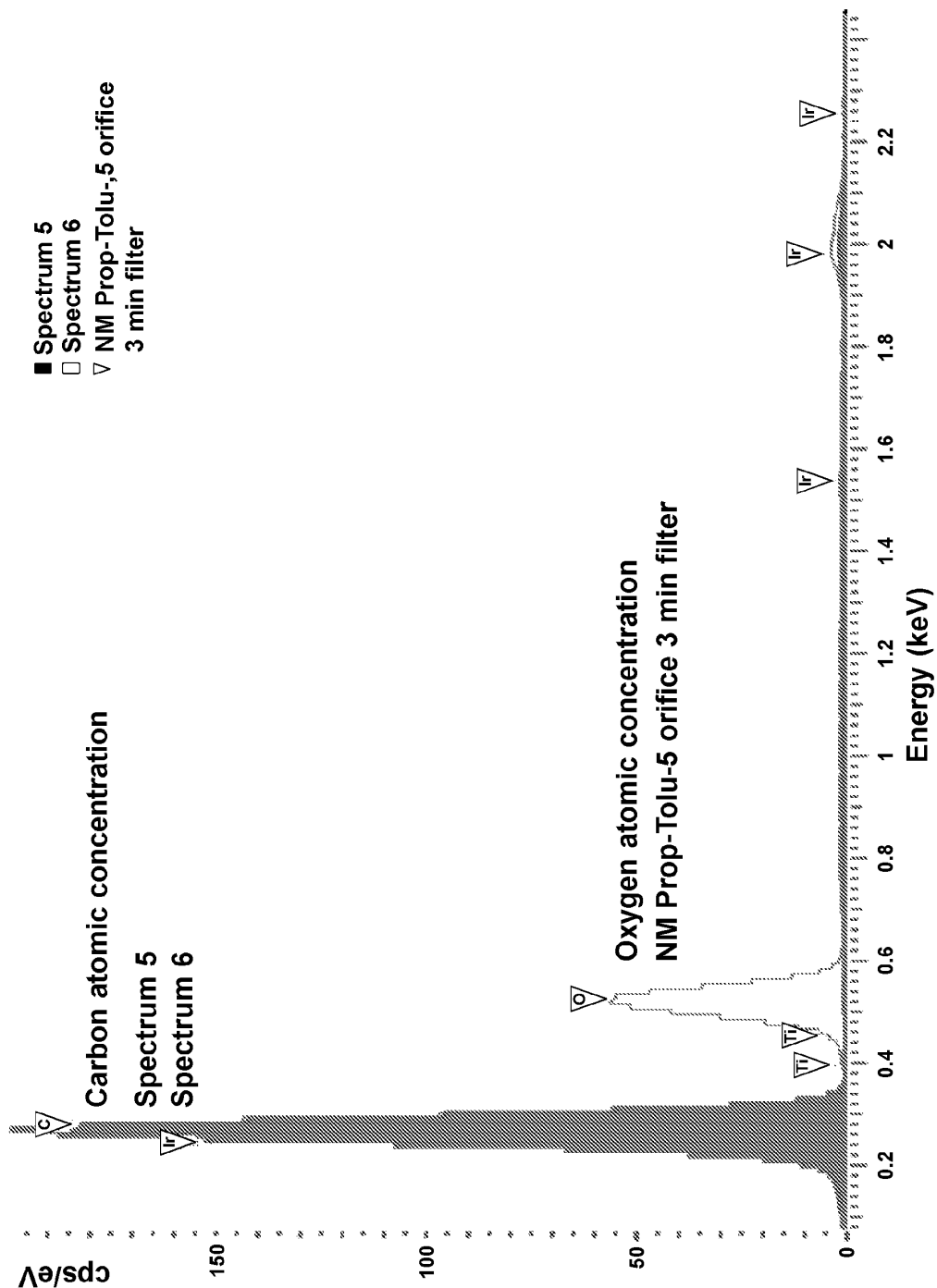


FIG. 4

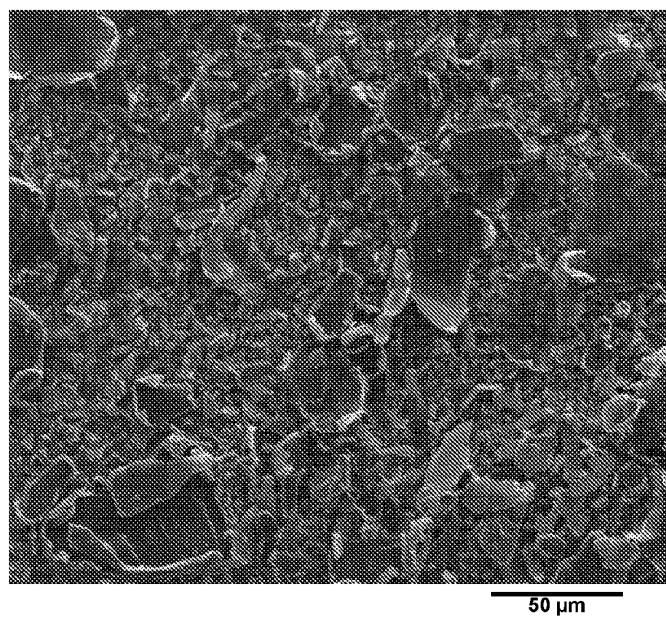


FIG. 5A

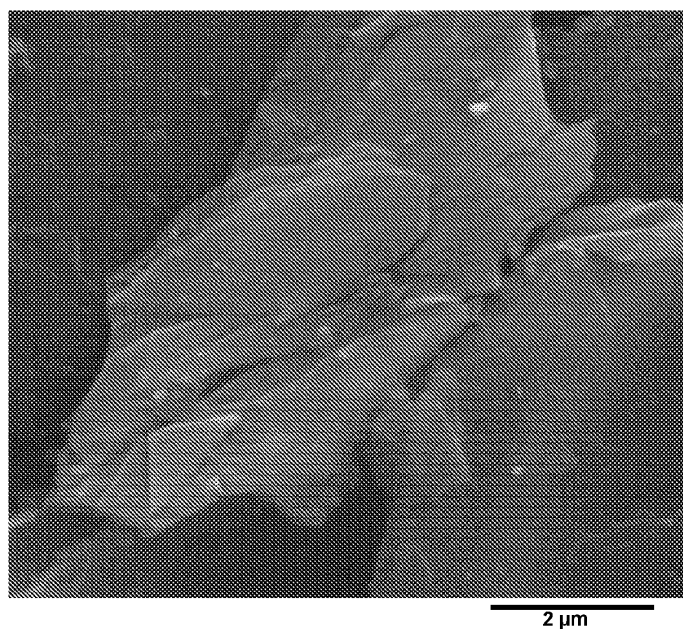


FIG. 5B

NM Prop-Tolu-,5 orifice 1min sample 3000x bse

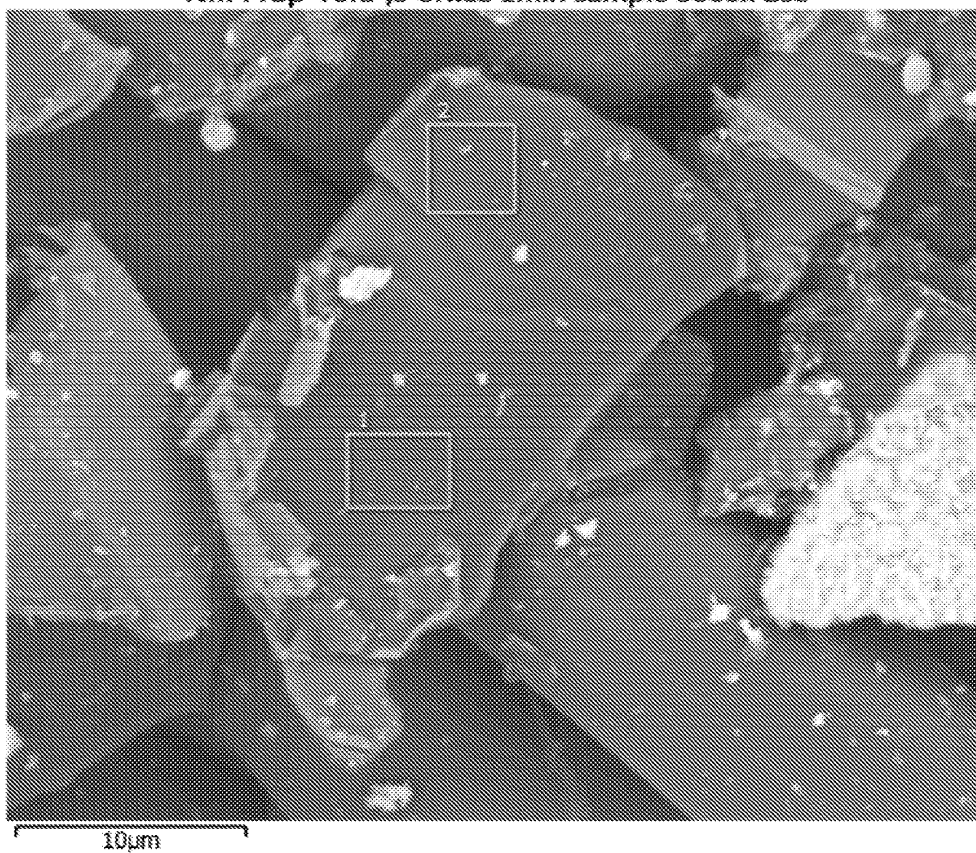


FIG. 6A

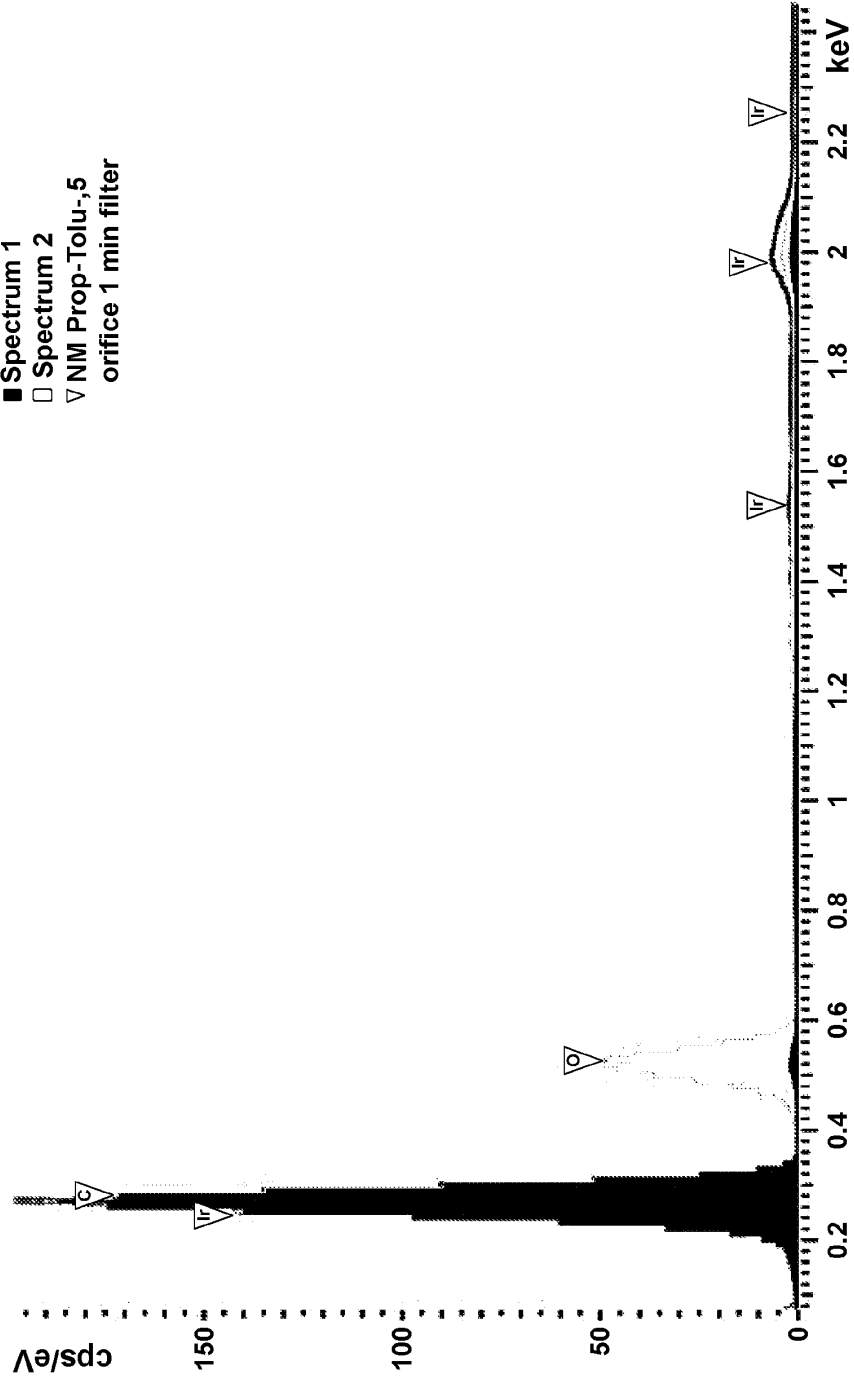


FIG. 6B

NM Prop-Tolu-,5 orifice 3min sample 3000x bse

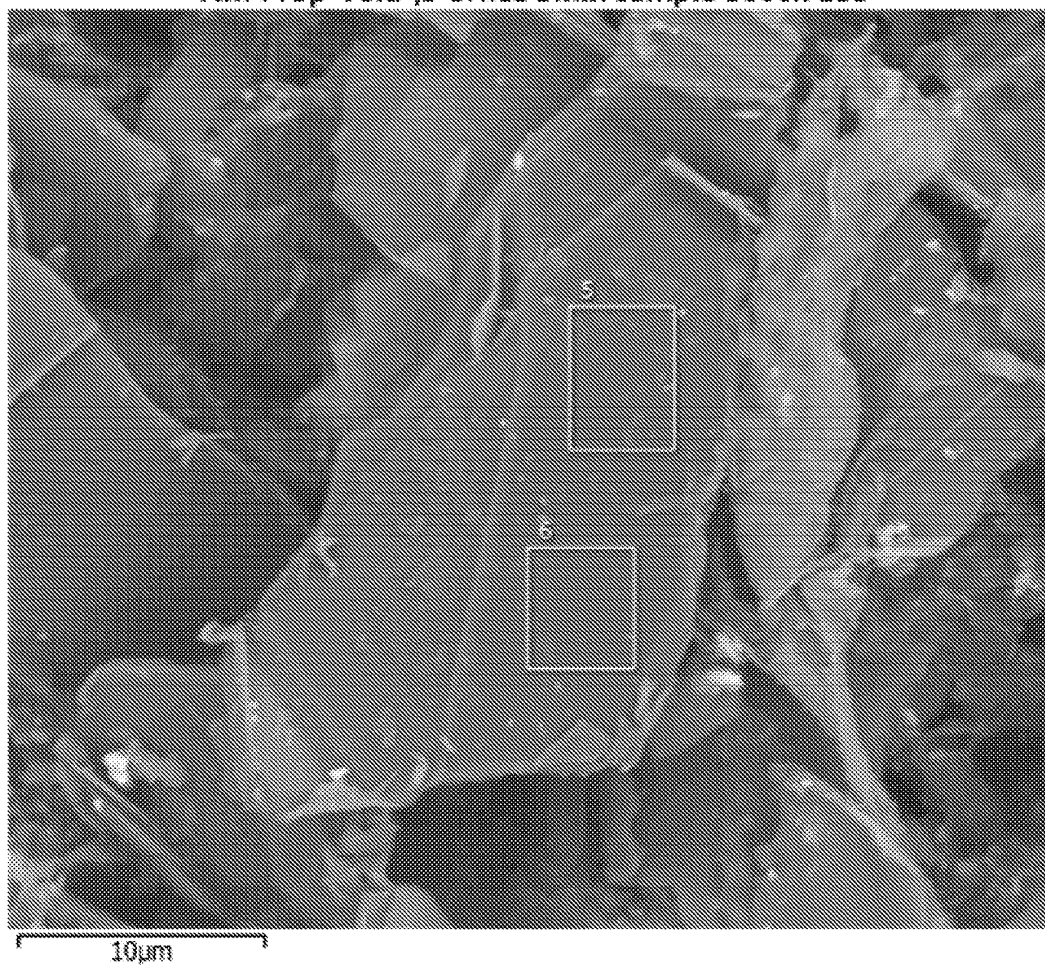


FIG. 7A

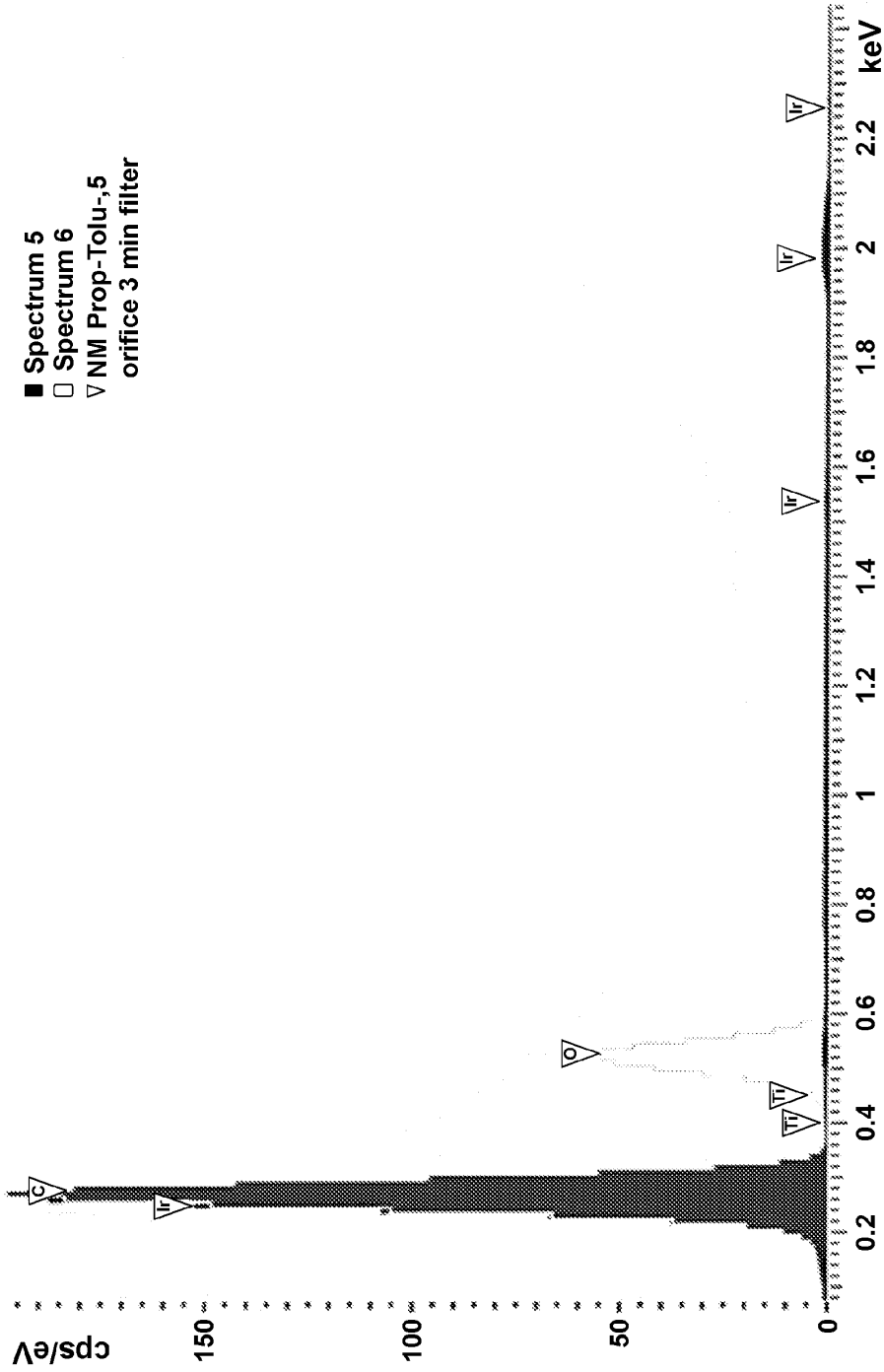


FIG. 7B

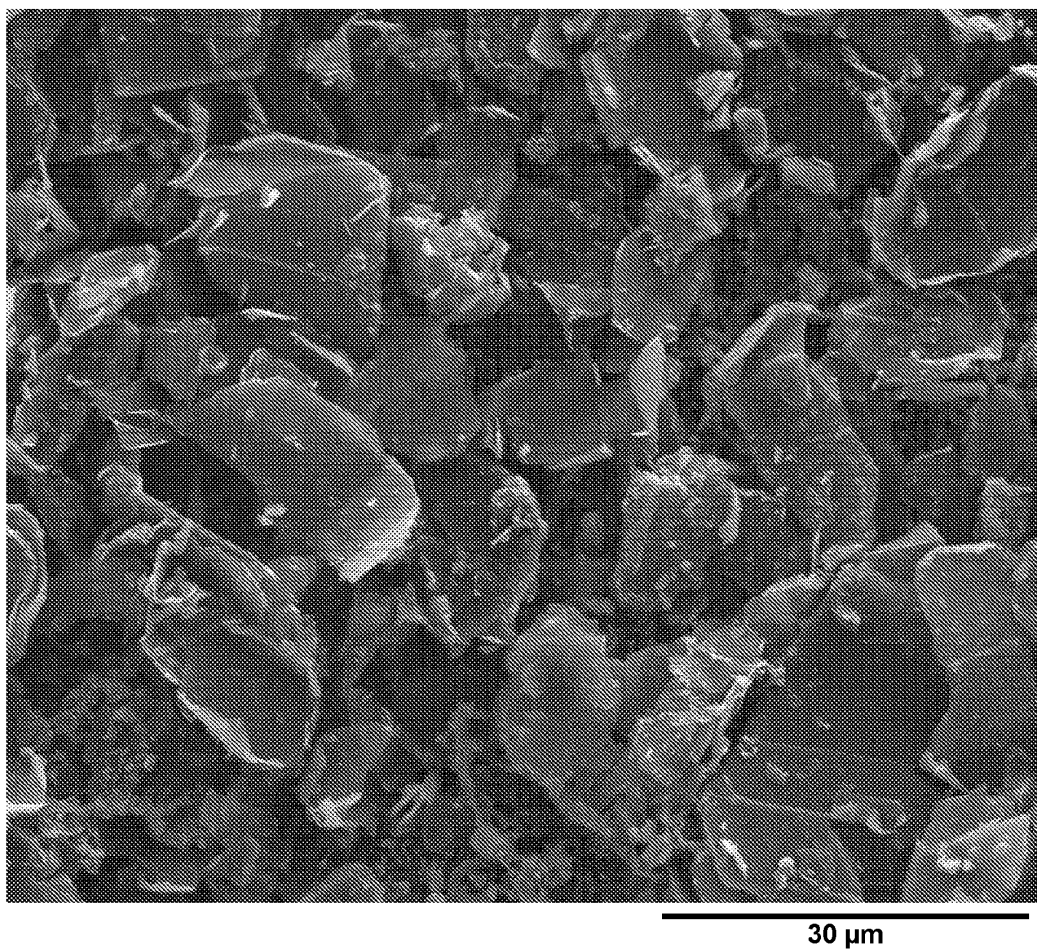


FIG. 8A

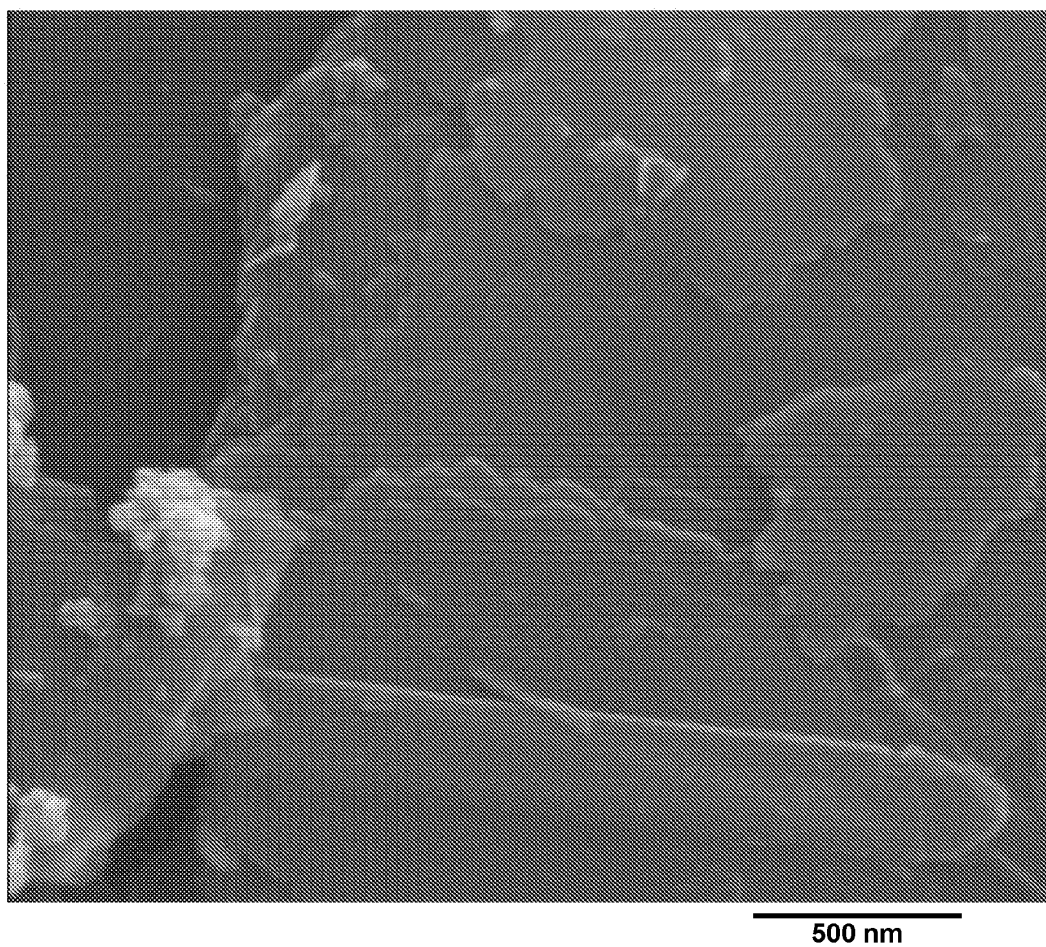


FIG. 8B

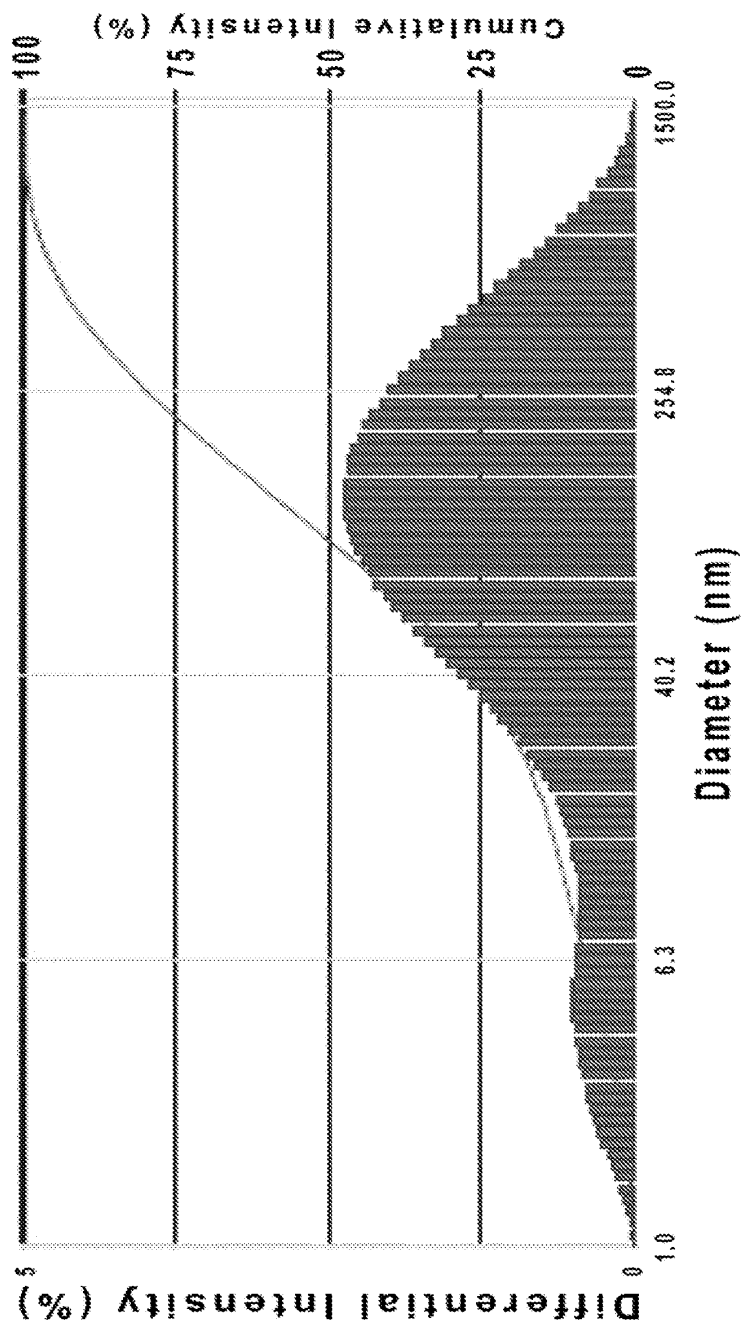


FIG. 9A

Distribution Results (Contin)

Peak	Diameter (nm)	Std. Dev.
1	4.4	2.0
2	184.3	193.0
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
Average	166.4	190.9
Residual:	3.015e-003	(O.K)

Cumulants Results

Diameter	(d)	: 35.2	(nm)
Polydispersity Index	(P.I.)	: 1.239	
Diffusion Const.	(D)	: 7.292e-010	(cm ² /sec)
	:		

Measurement Condition

Temperature	: 24.5	(°C)
Diluent Name	: 10W-30	
Refractive Index	: 1.4700	
Viscosity	: 170.0000	(cP)
Scattering Intensity	: 8867	(cps)

FIG. 9B

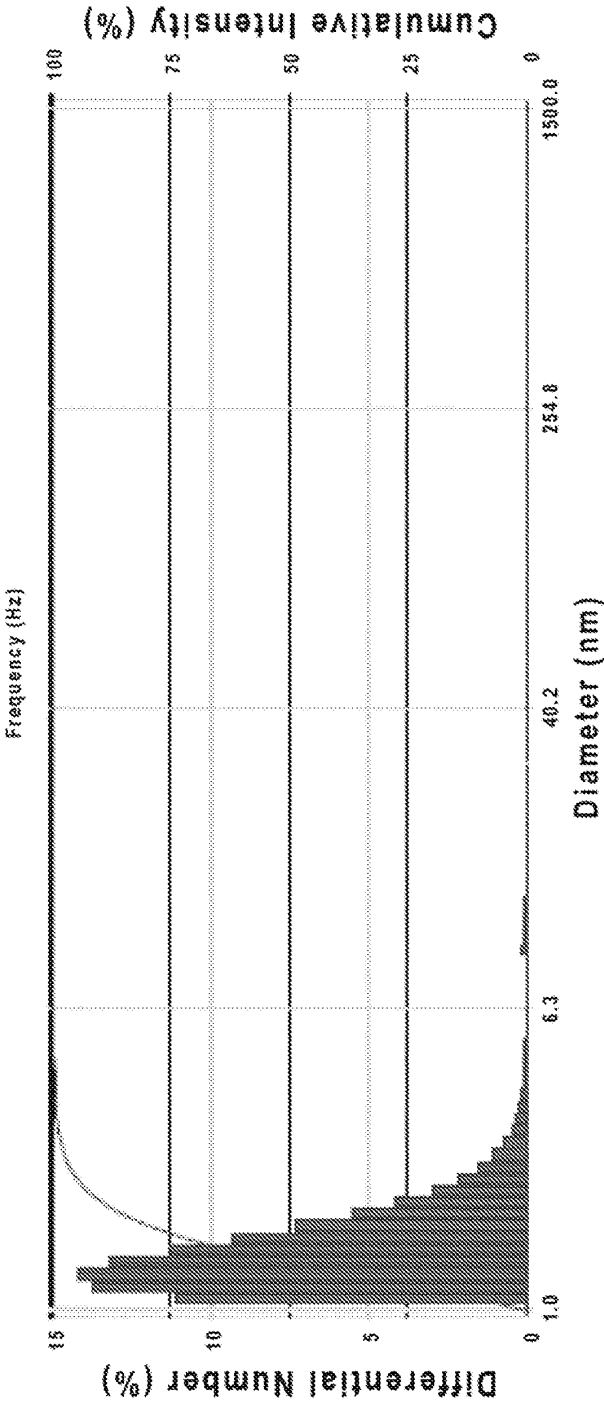


FIG. 10A

Distribution Results (Contin)

Peak	Diameter (nm)	Std. Dev.
1	4.4	2.0
2	184.3	193.0
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
Average	166.4	190.9
Residual:	3.015e-003	(O.K)

Cumulants Results

Diameter (d) : 35.2 (nm)
Polydispersity Index (P.I.) : 1.239
Diffusion Const. (D) : 7.292e-010 (cm²/sec)
:

Measurement Condition

Temperature : 24.5 (°C)
Diluent Name : 10W-30
Refractive Index : 1.4700
Viscosity : 170.0000 (cP)
Scattering Intensity : 8867 (cps)

FIG. 10B

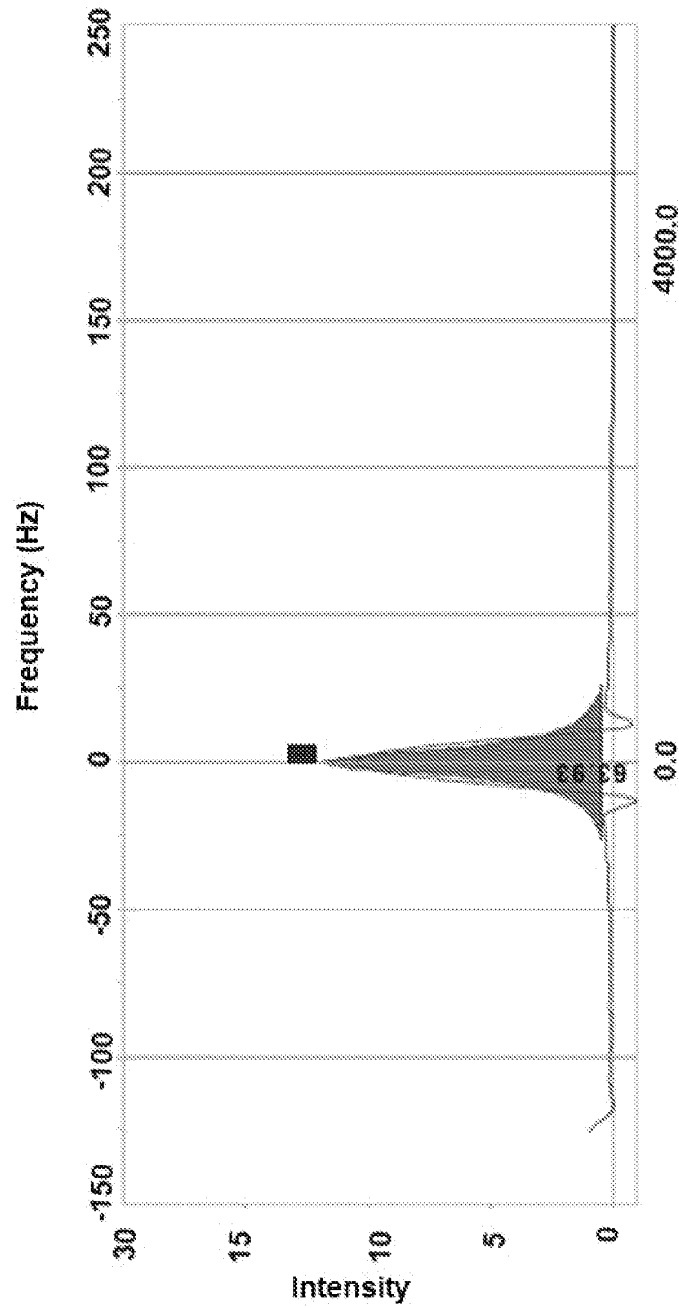


FIG. 11A

Measurement Results					
Zeta Potential	:63.93	(mV)	Doppler shift	: 0.03	(Hz)
Mobility	:6.982e-008	(cm ² /Vs)	Base Frequency	: 125.2	(Hz)
Conductivity	:0.0083	(mS/cm)			
Zeta Potential of Cell					
Upper Surface	: -174.03	(mV)			
Lower Surface	: 453.30	(mV)			
Cell Condition					
Cell Type	: Flow Cell				
Avg. Electric Field	: 81.46	(V/cm)			
Avg. Current	: 0.03	(mA)			

FIG. 11B

Min-oil-shear-1-min 2500x bse

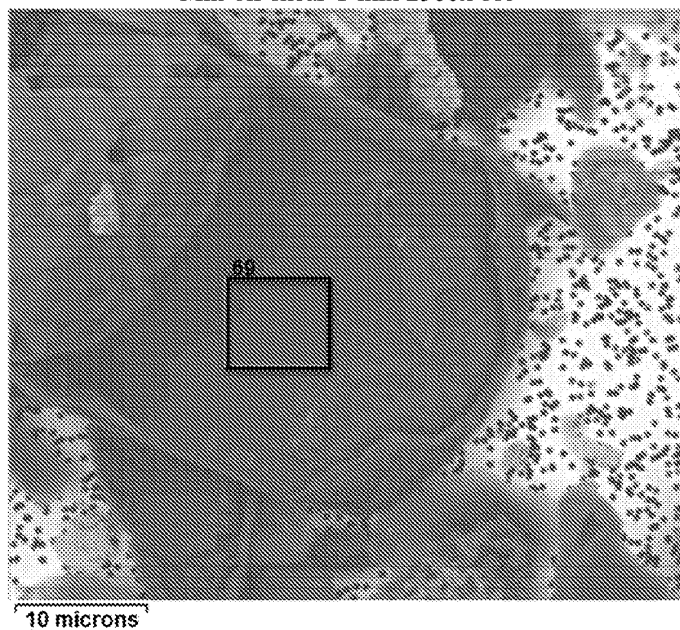


FIG. 12A

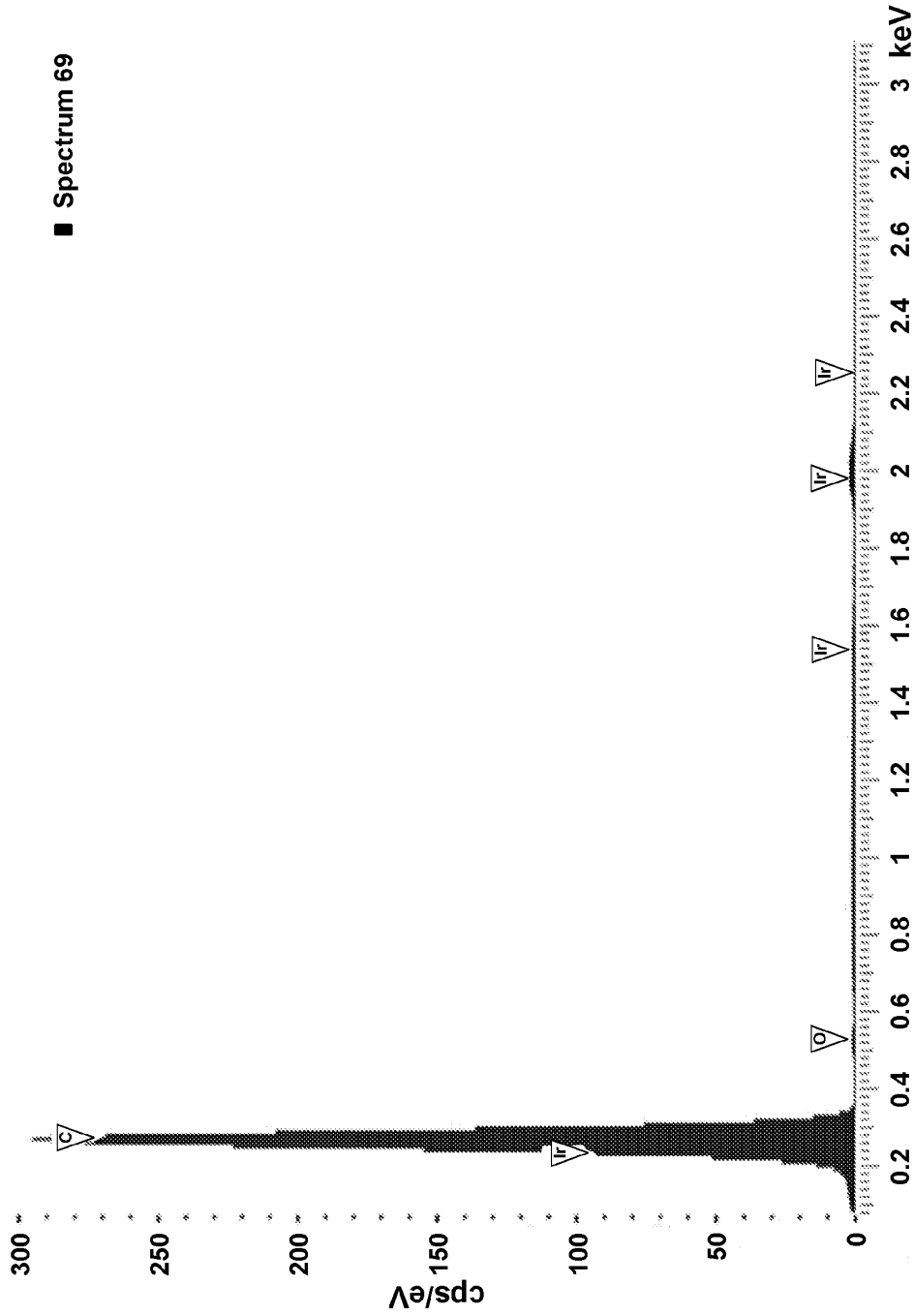


FIG. 12B

Carbon-Sulfur-composite-30-min-CS2 2500x bse

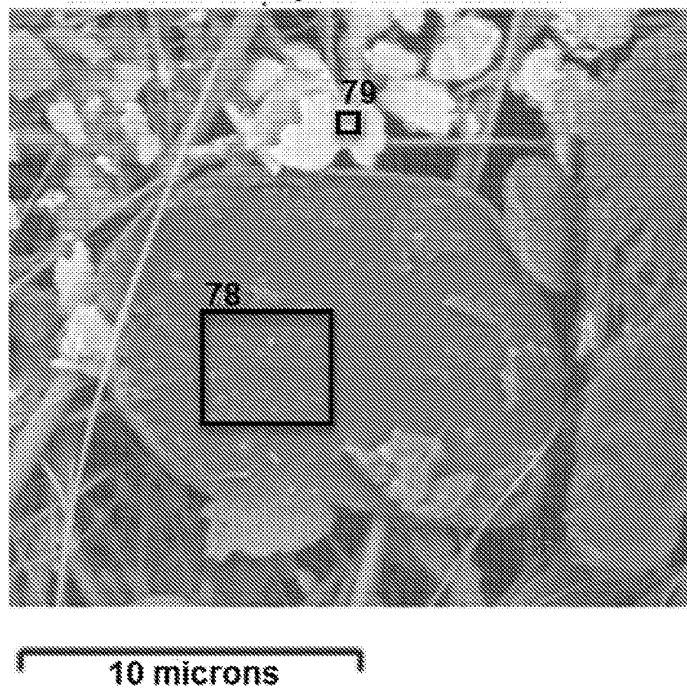


FIG. 13A

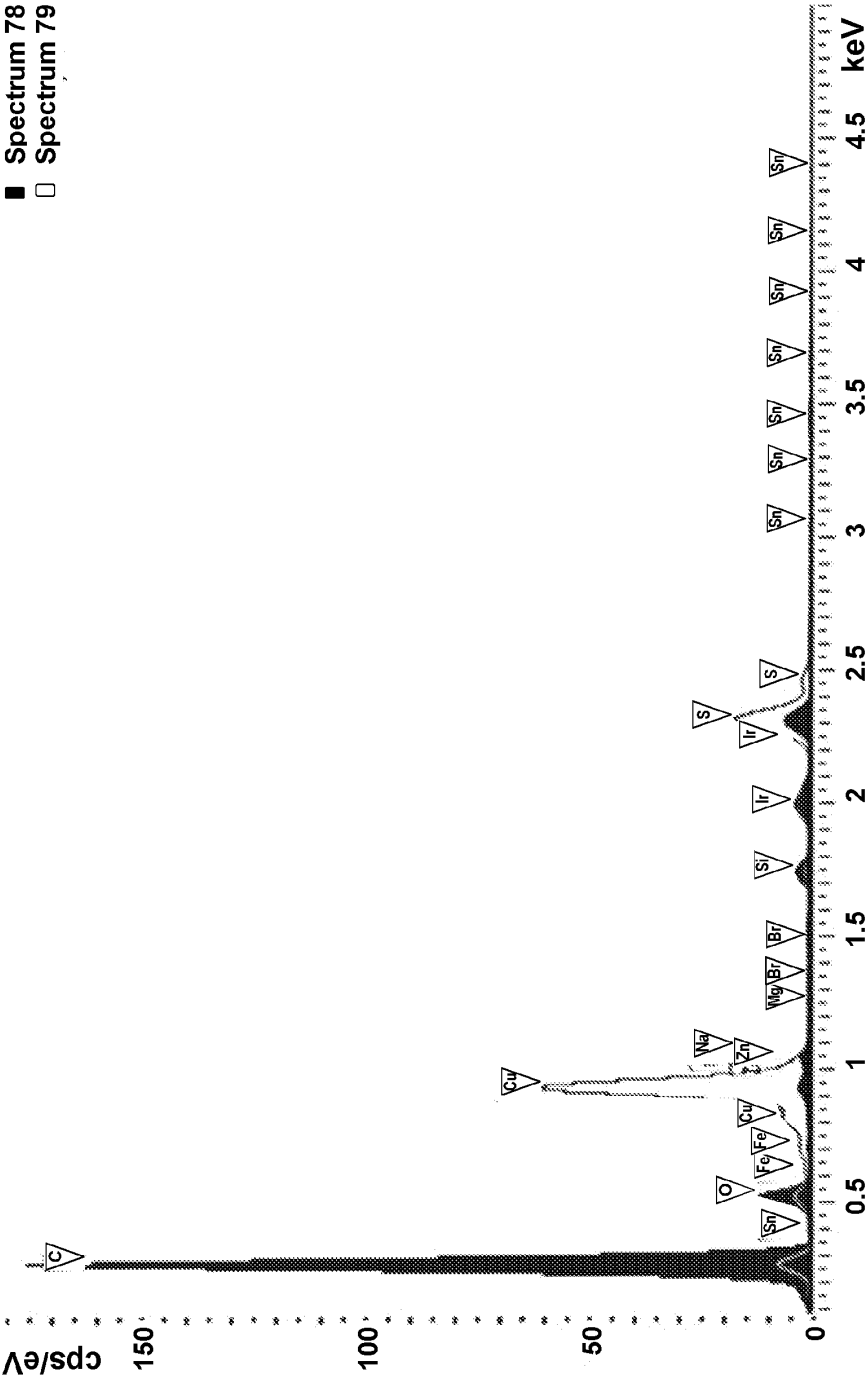


FIG. 13B

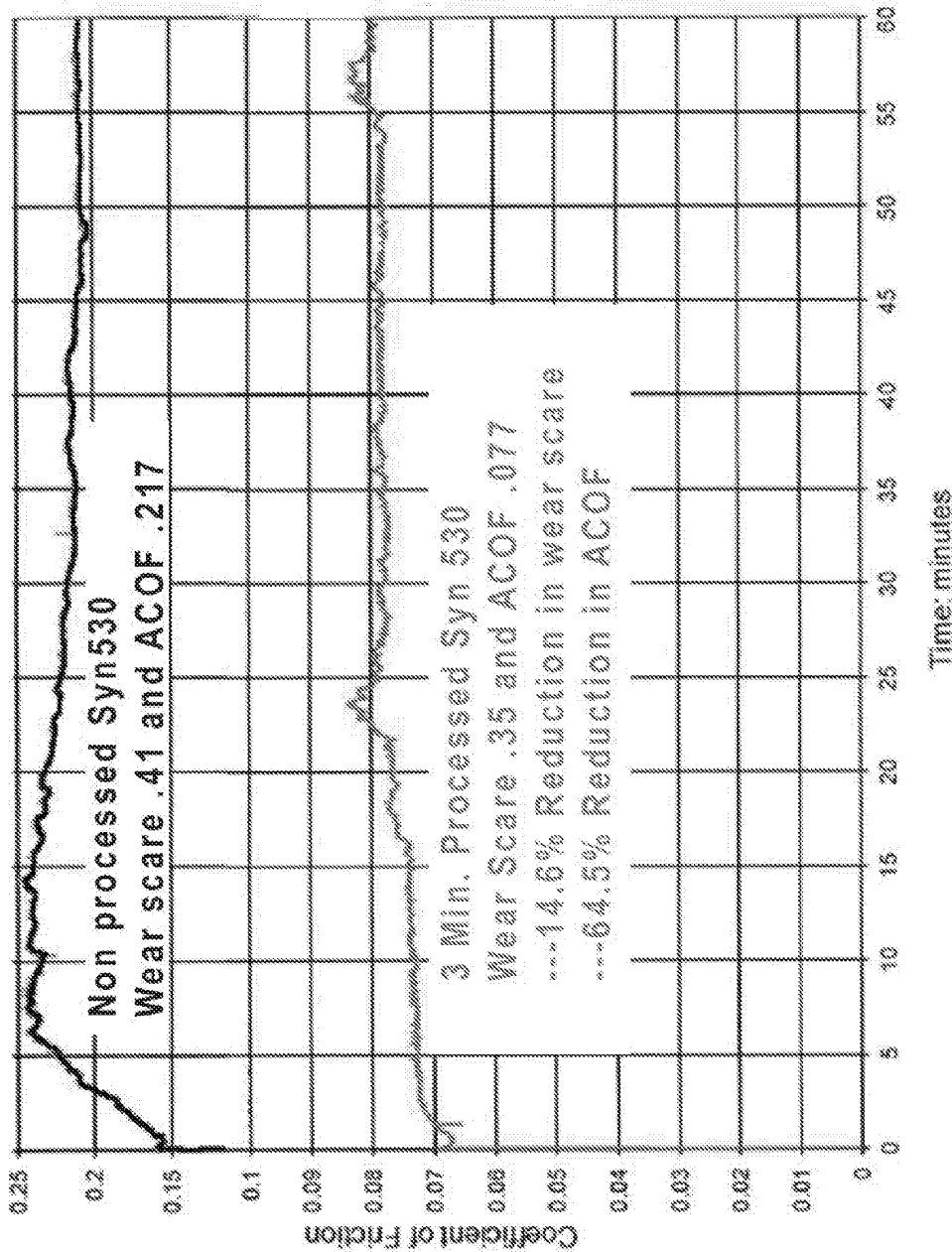


FIG. 14

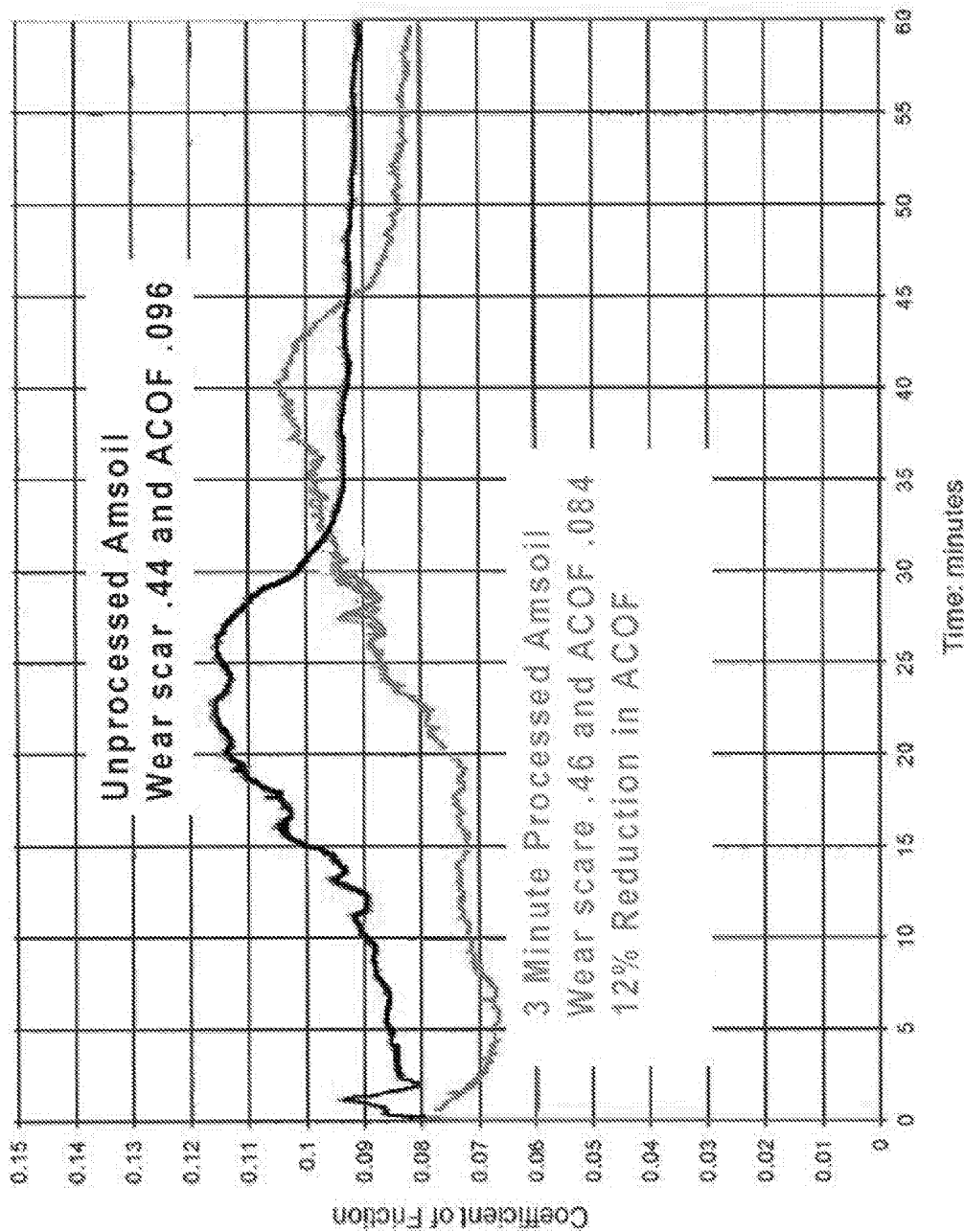


FIG. 15

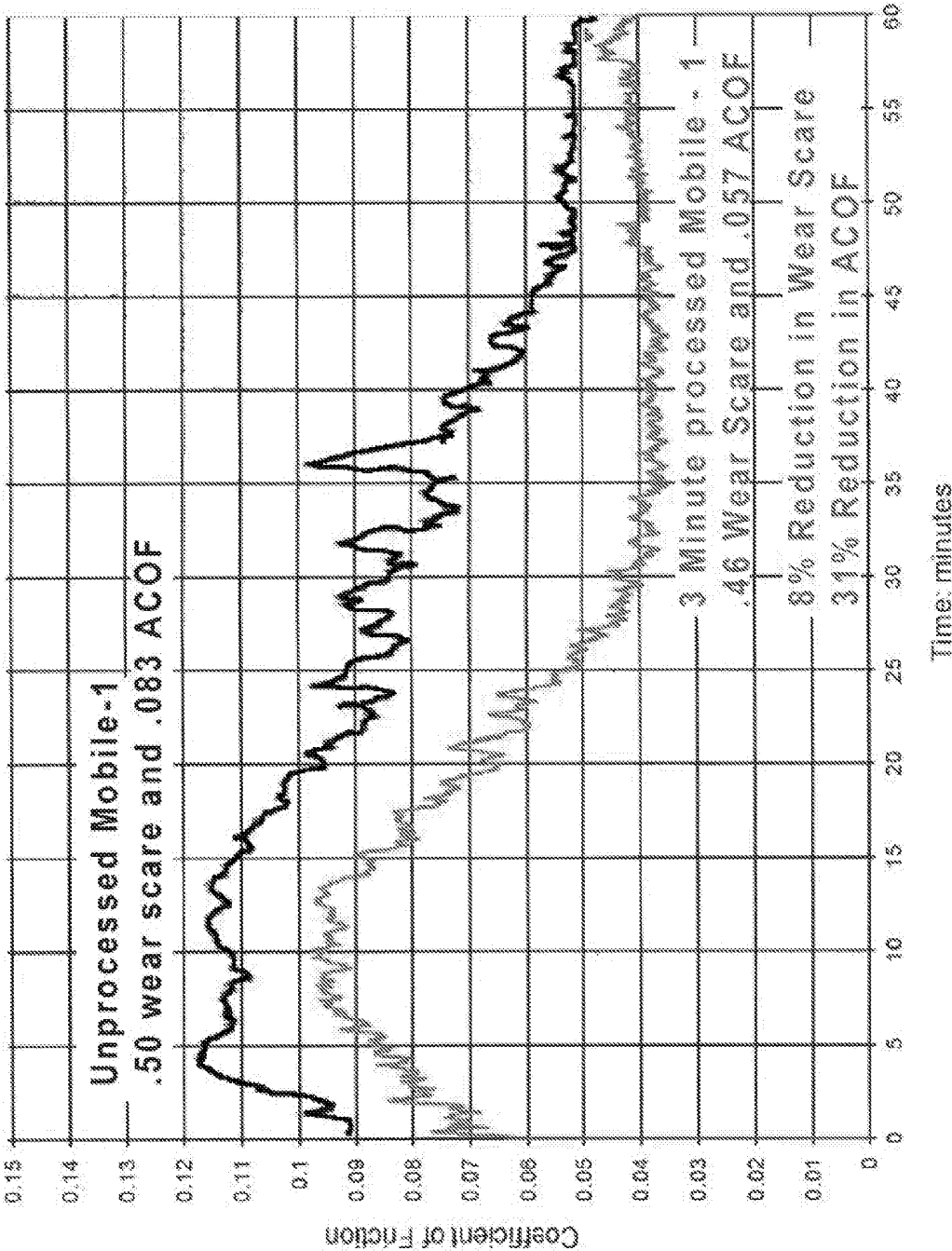


FIG. 16

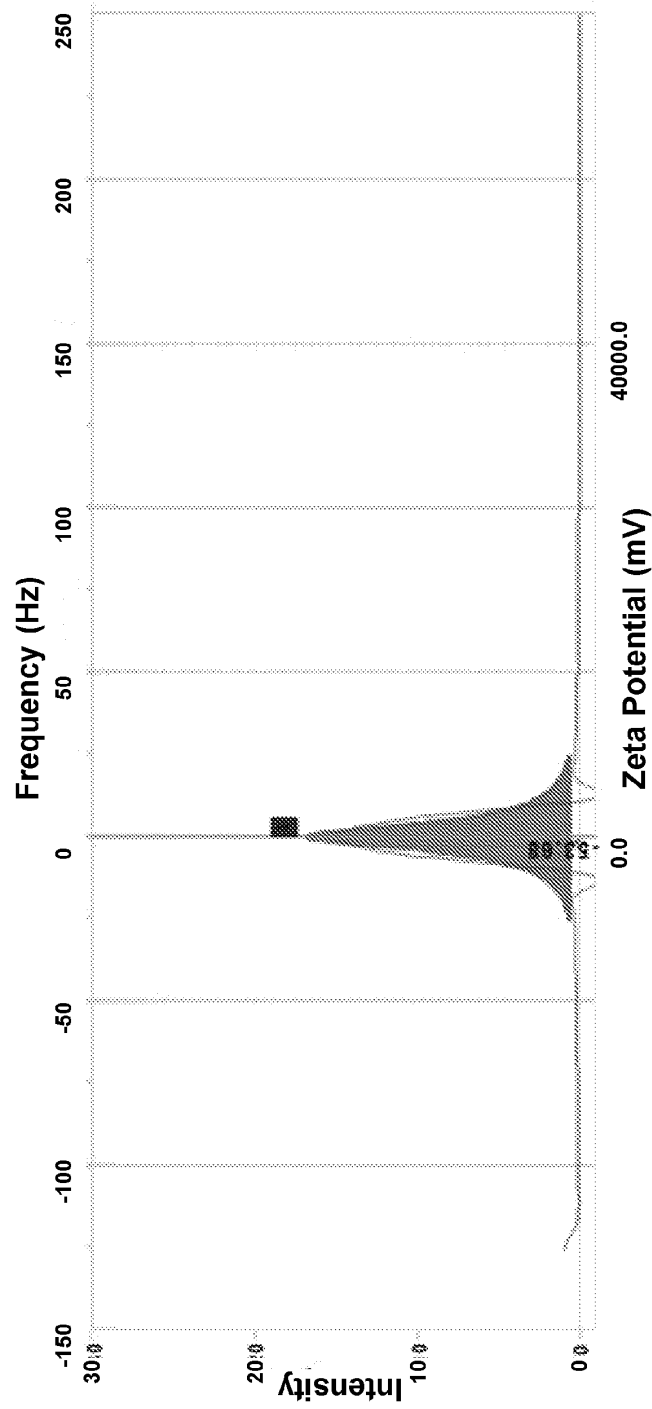
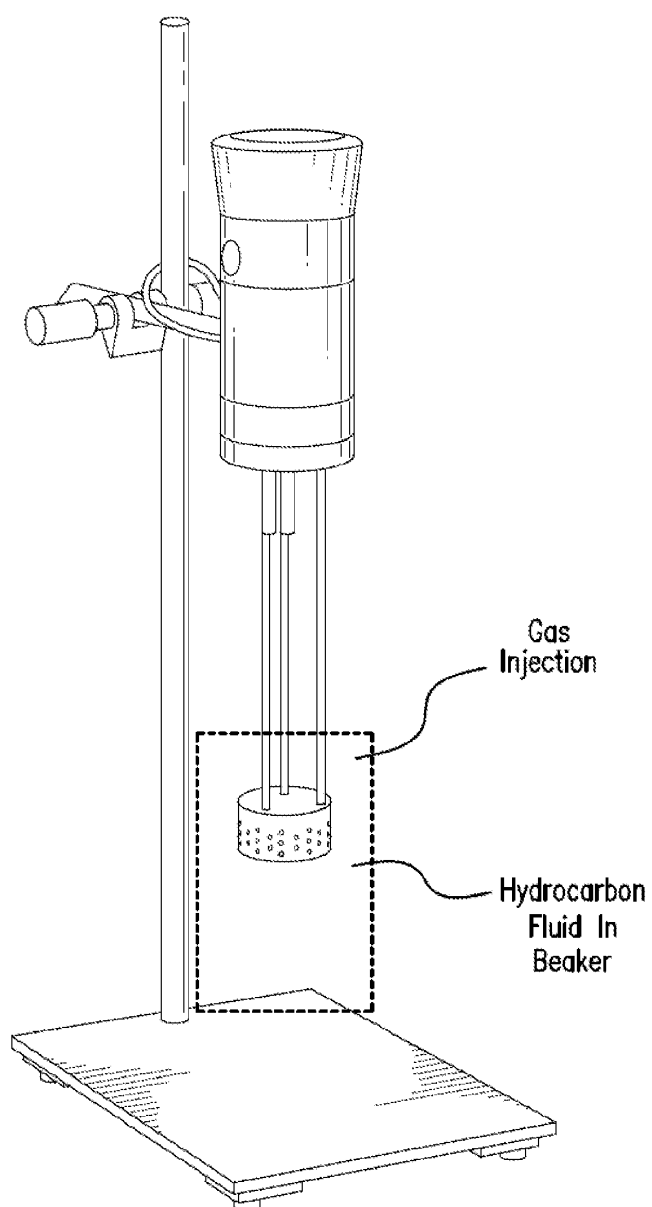
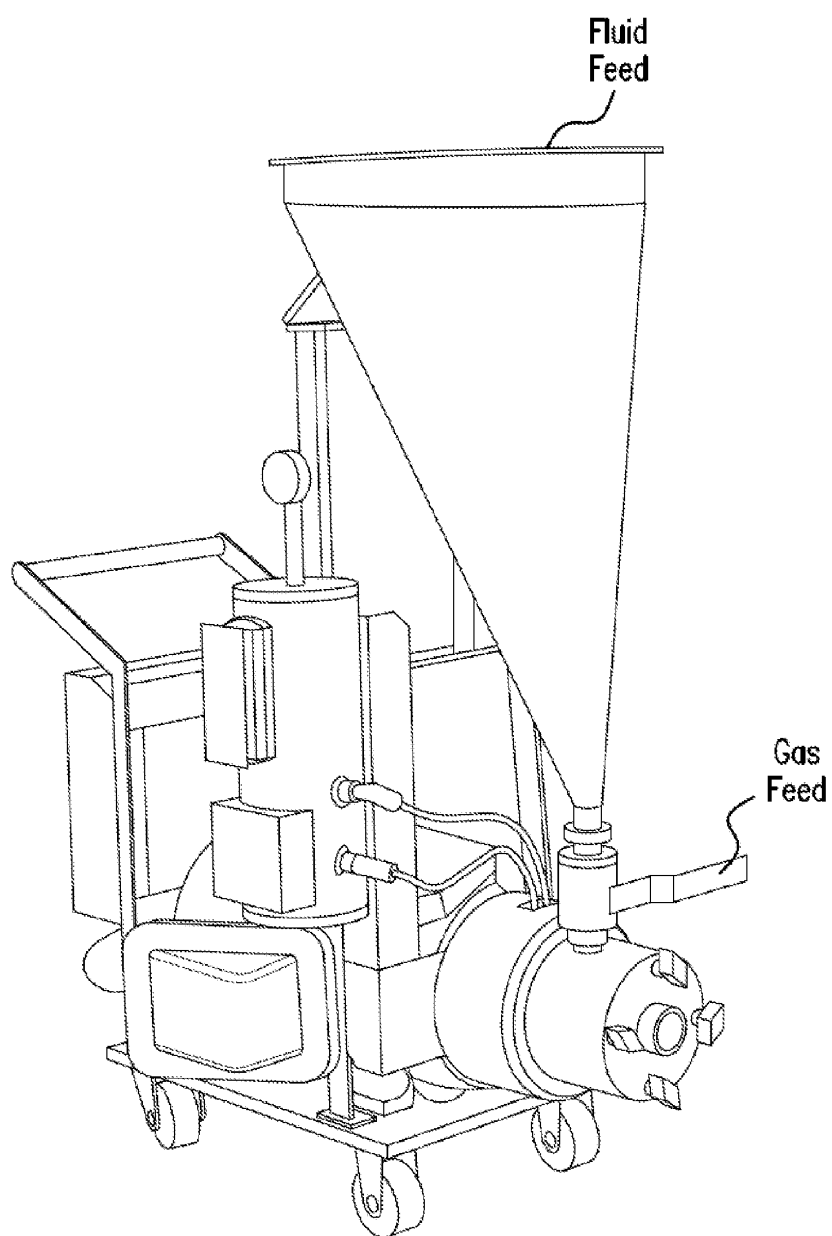


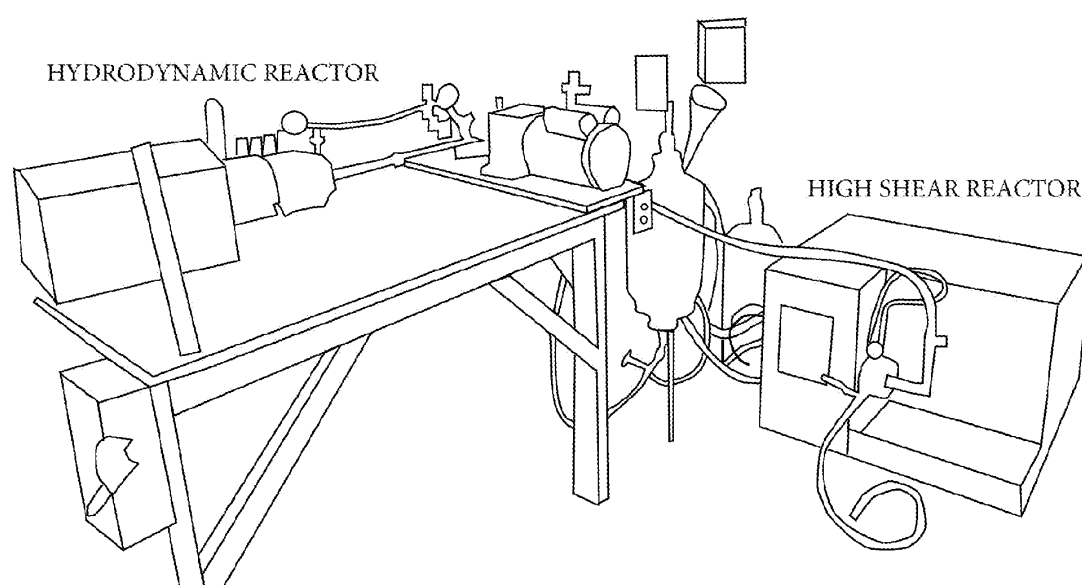
FIG. 17A

Measurement Results					
Zeta Potential	: -50.68	(mV)	Doppler shift	: -0.19	(Hz)
Mobility	: -4.92e-007	(cm ² /Vs)	Base Frequency	: 125.7	(Hz)
Conductivity	: 0.0091	(mS/cm)			
Zeta Potential of Cell					
Upper Surface	: -64.15	(mV)			
Lower Surface	: -32.81	(mV)			
Cell Condition					
Cell Type	: Flow Cell				
Avg. Electric Field	: 80.59	(V/cm)			
Avg. Current	: 0.03	(mA)			
Diluent Properties					
Diluent Name	: mineral oil, light				
Temperature	: 25.0	(°C)			
Refractive Index	: 1.4670				
Viscosity	: 19.1092	(cP)			
Dielectric Constant	: 2.1				

FIG. 17B

**FIG. 18**

**FIG. 19**

**FIG. 20**

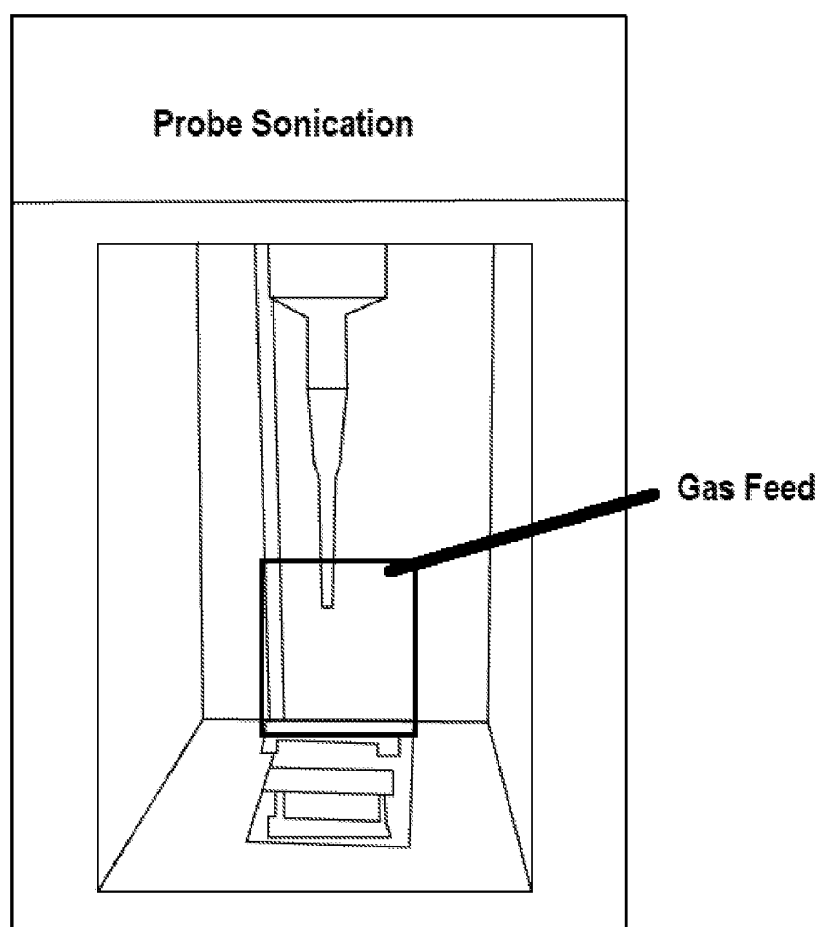


FIG. 21

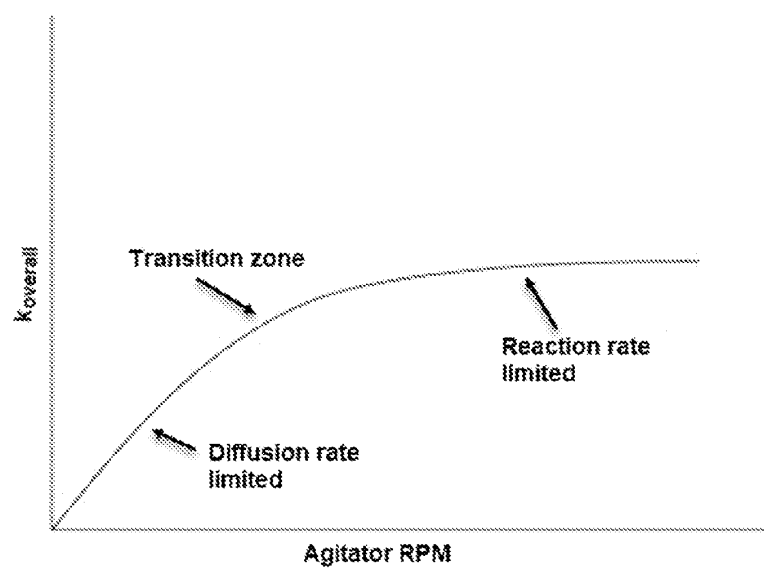
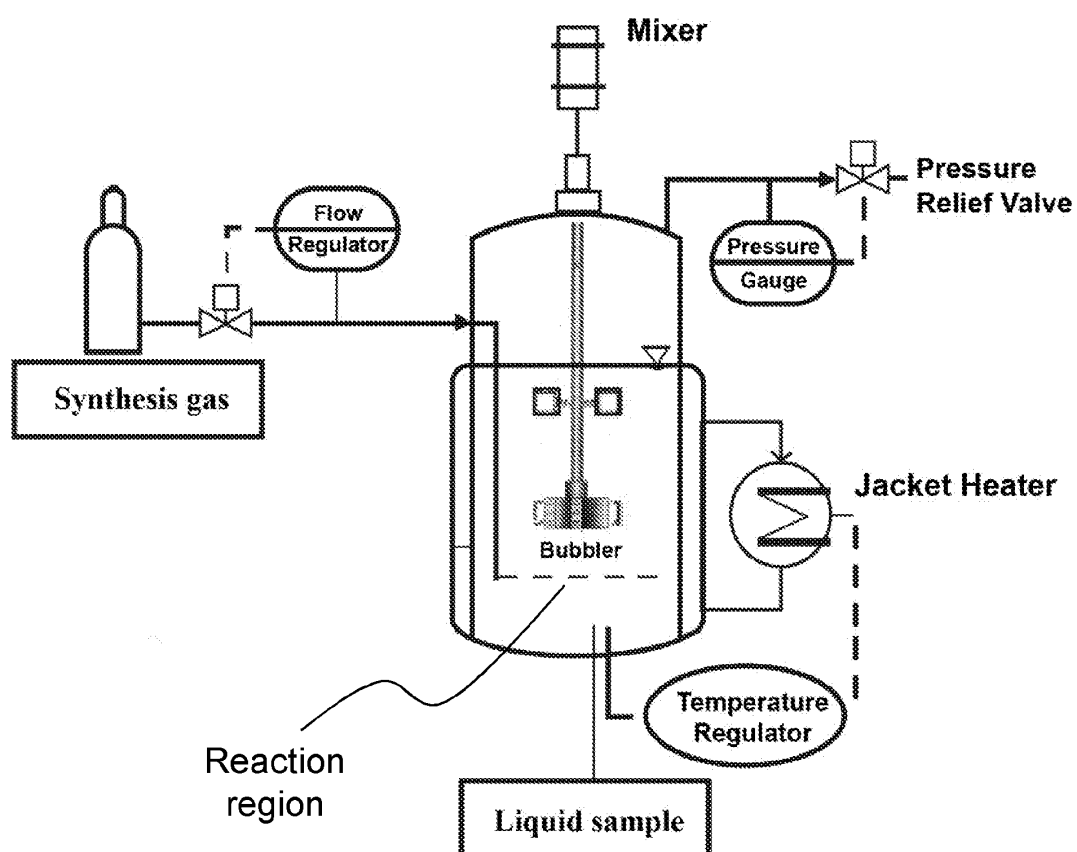


FIG. 22

**FIG. 23**

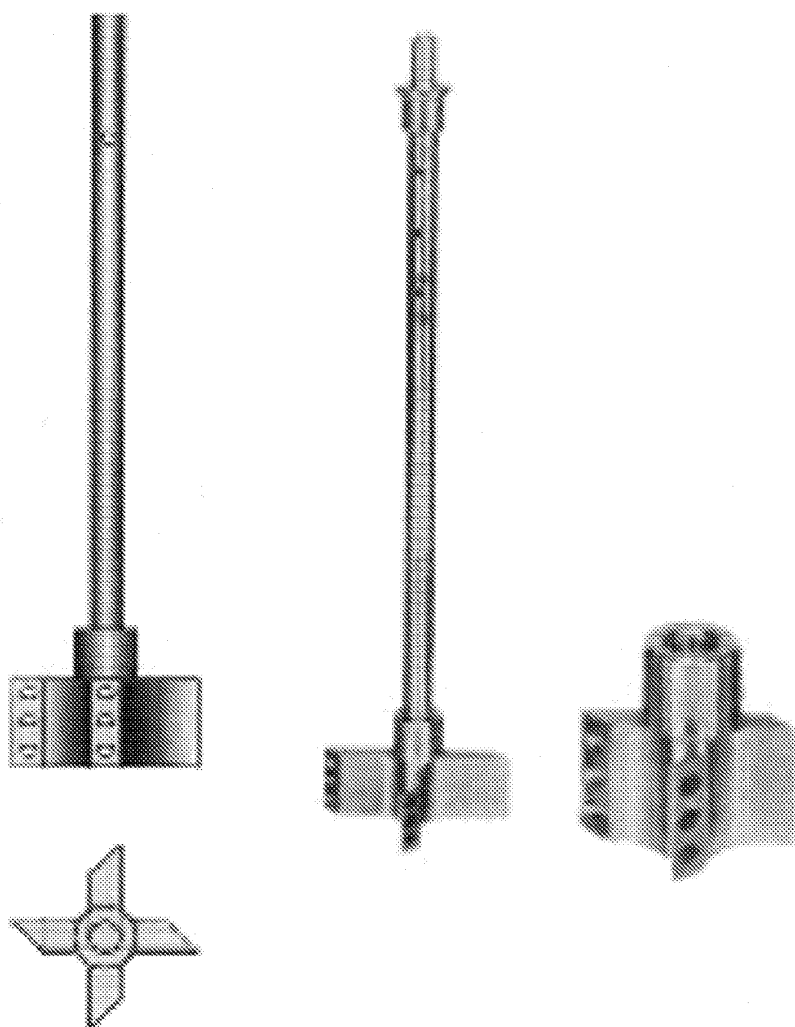


FIG. 24

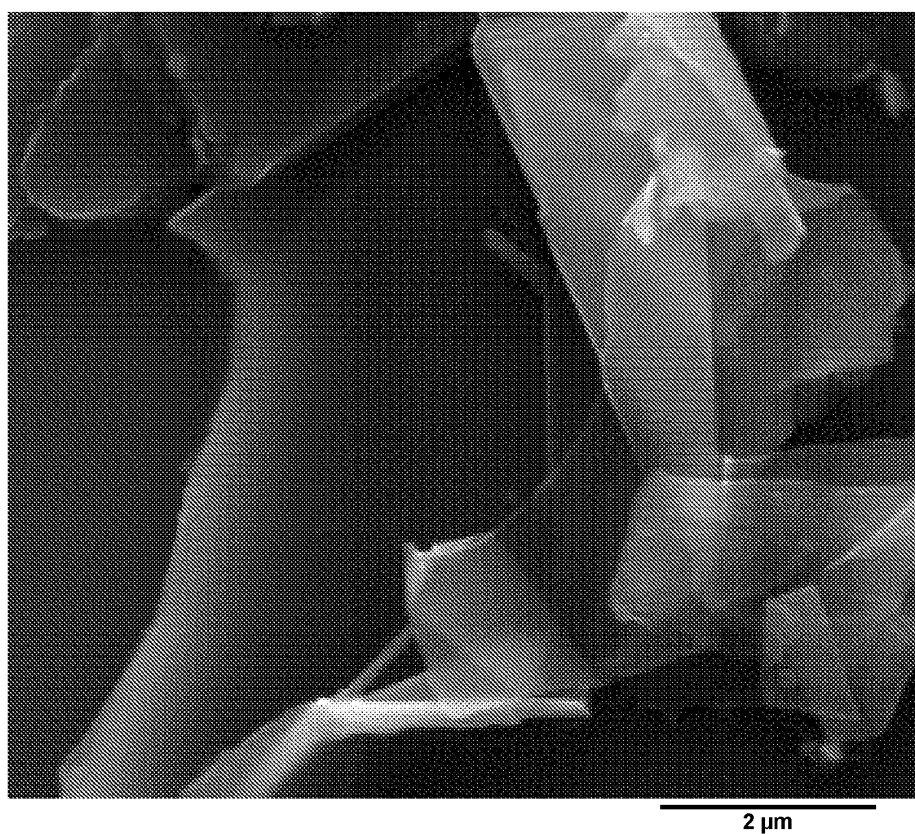


FIG. 25

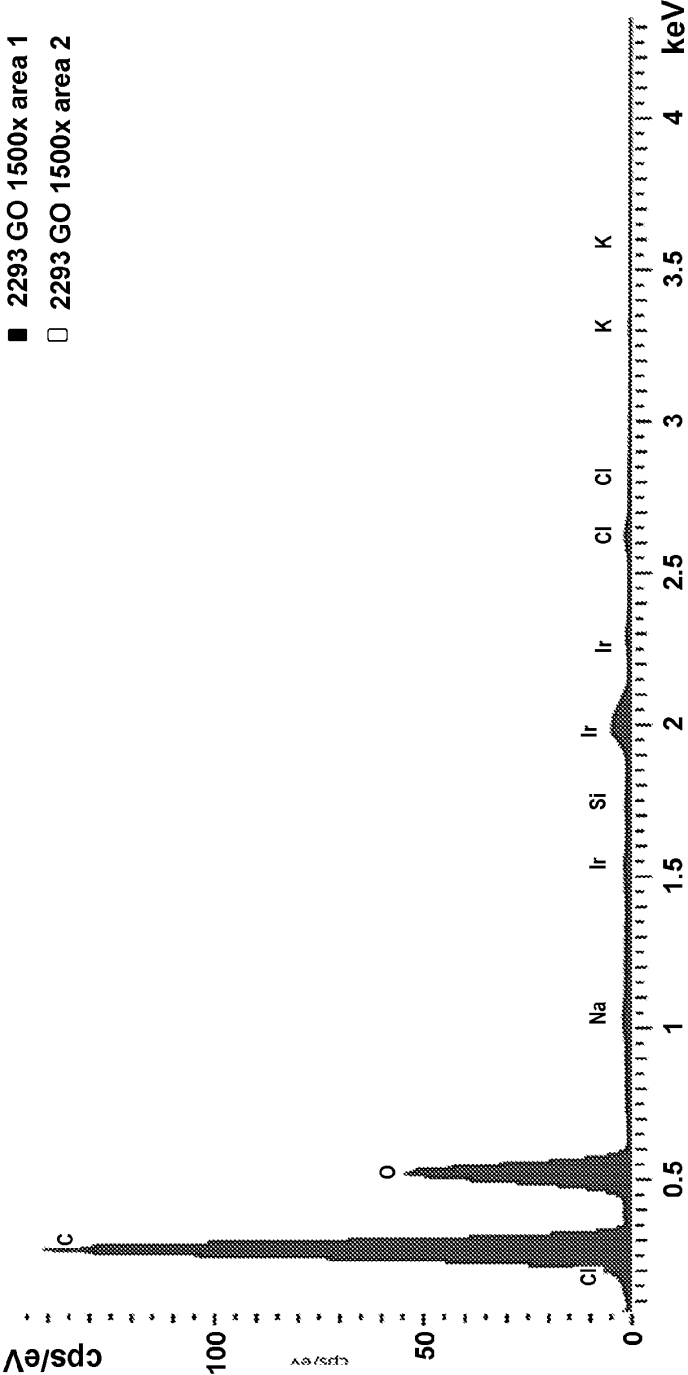


FIG. 26

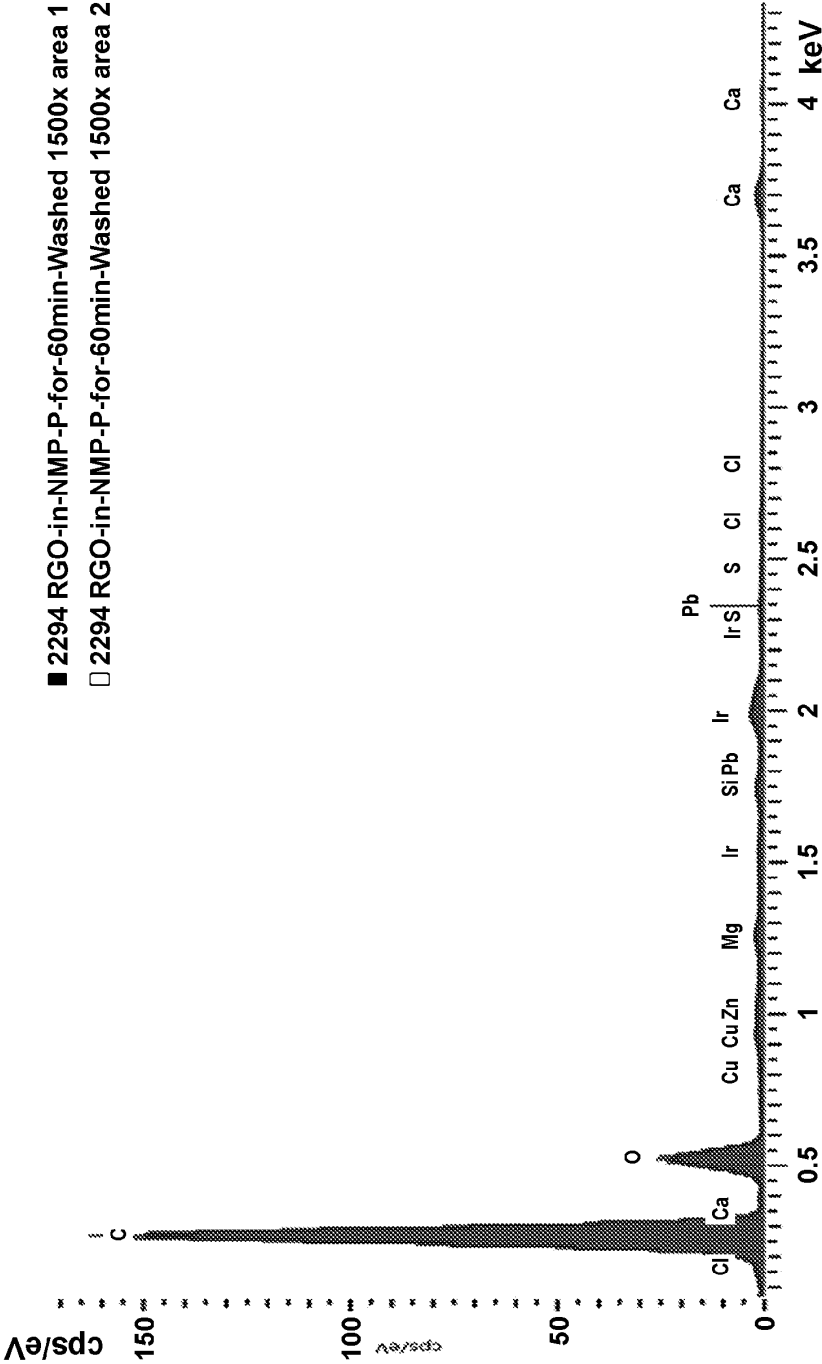


FIG. 27

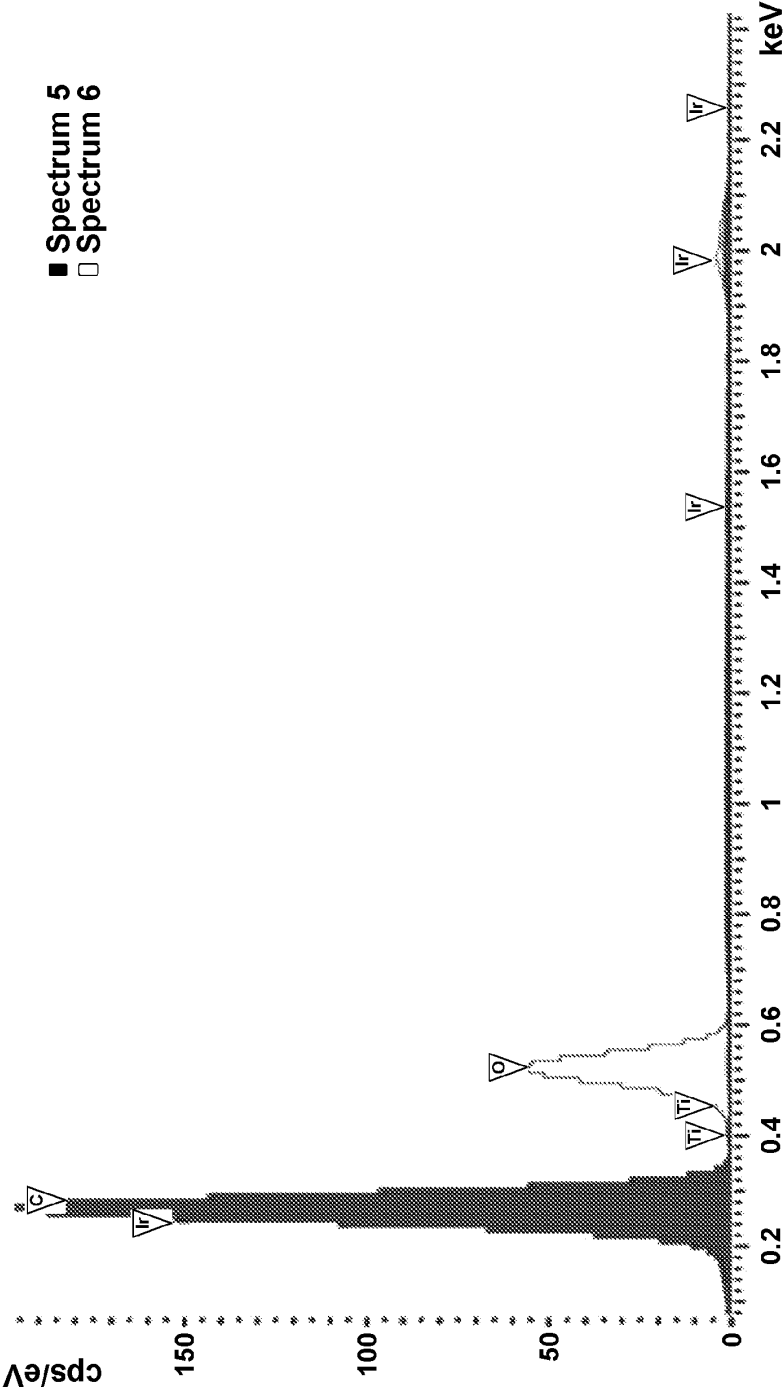


FIG. 28

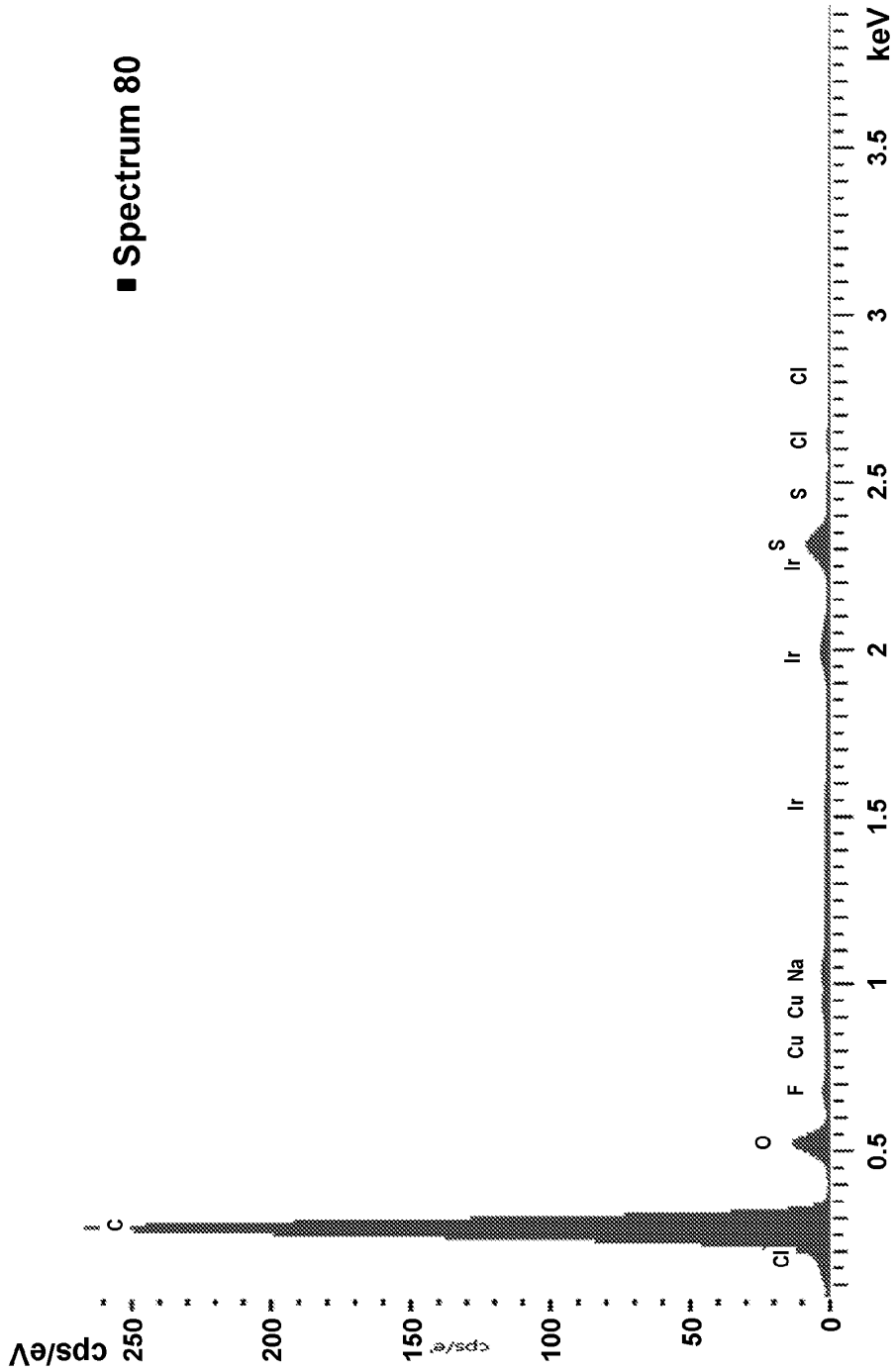


FIG. 29

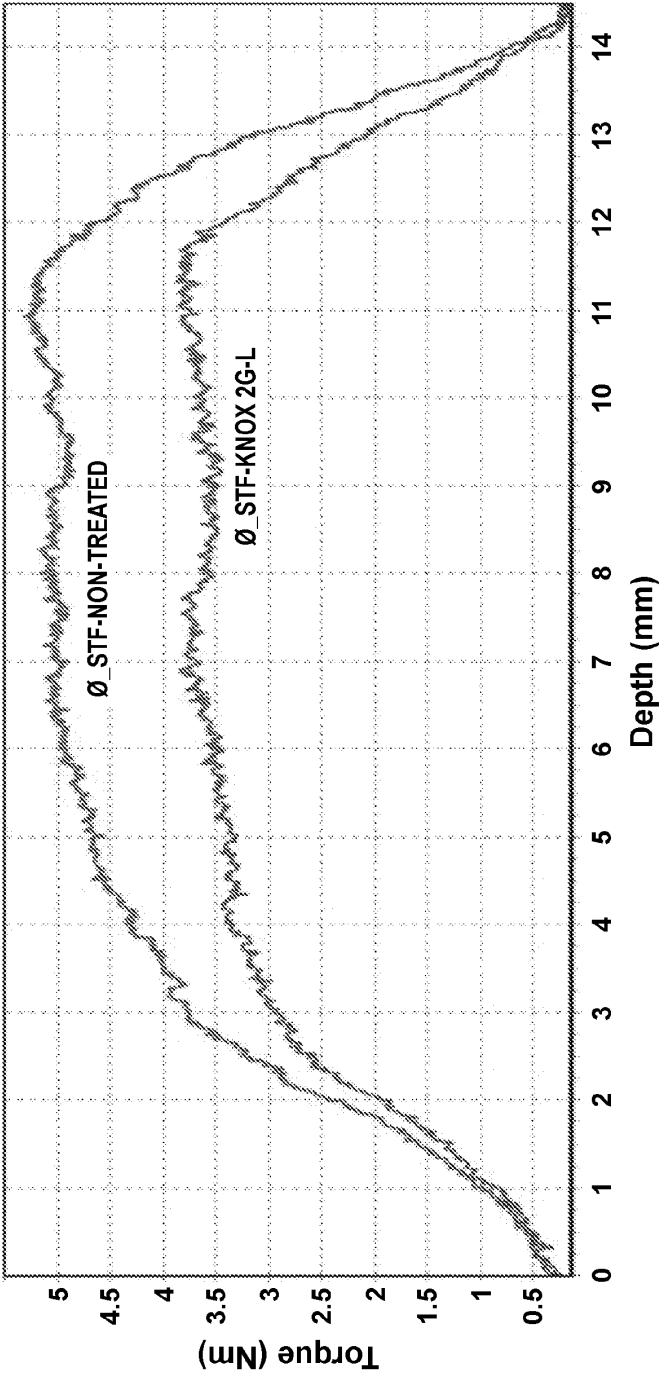


FIG. 30A

Measurements	Mean	Maximum	Std. Dev.
Ø_STF-NON-TREATED	3.785 Nm	5.320 Nm	1.632 Nm
Ø_STF-KNOX 2G-L	2.801 Nm	3.882 Nm	1.107 Nm

FIG. 30B

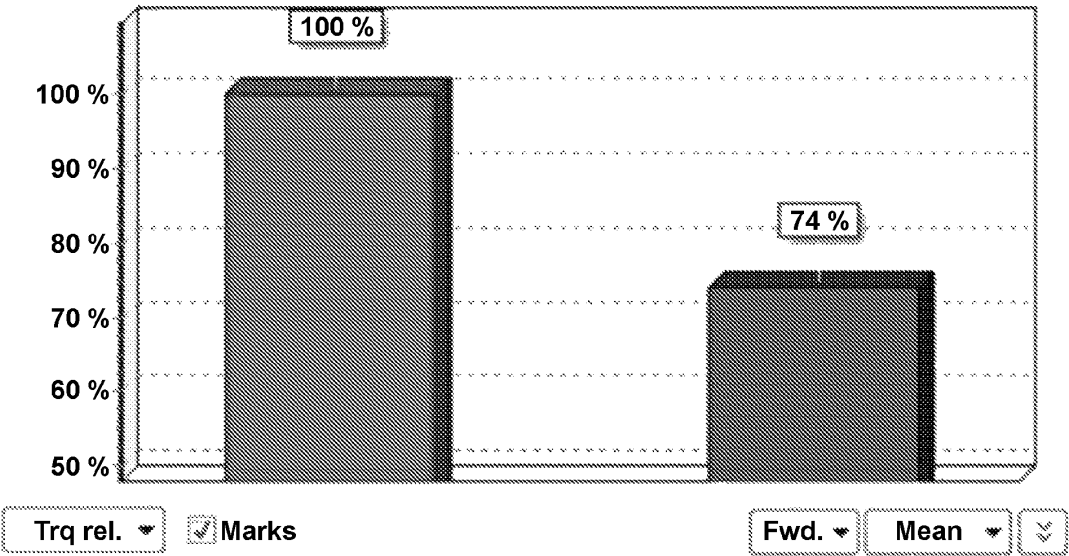


FIG. 30C

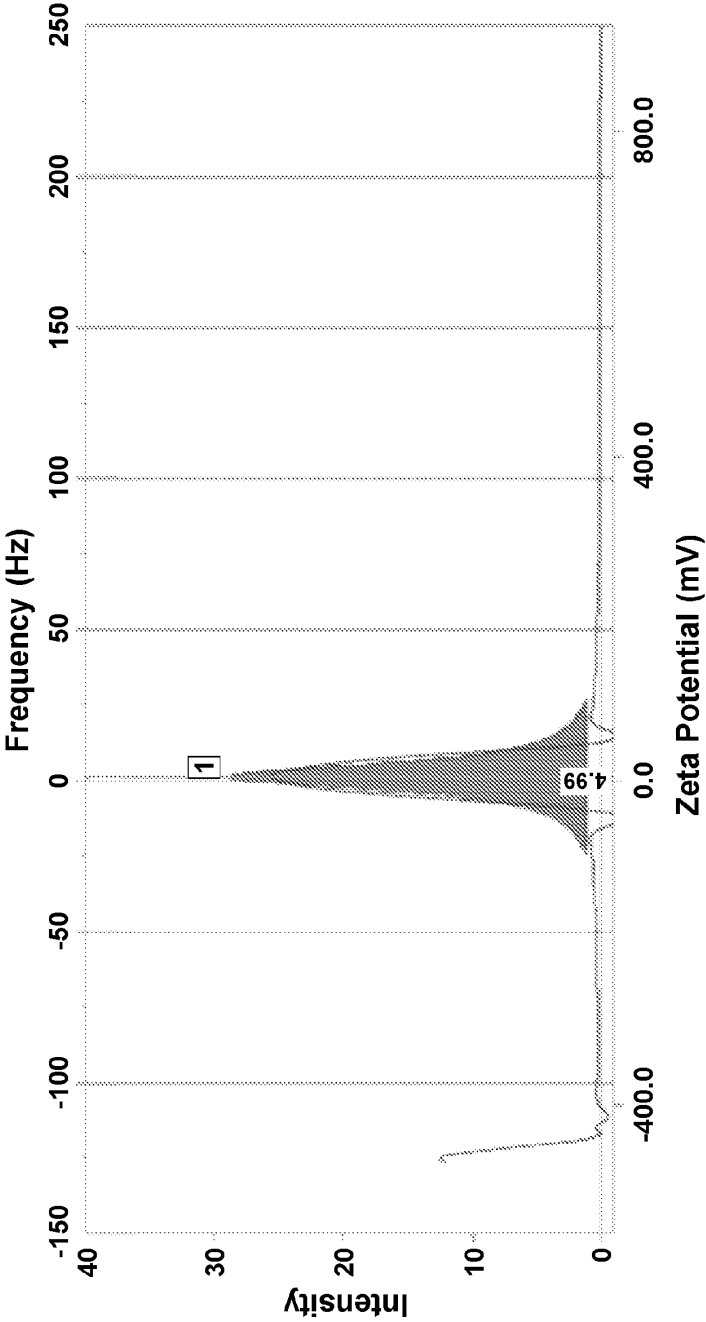


FIG. 31