

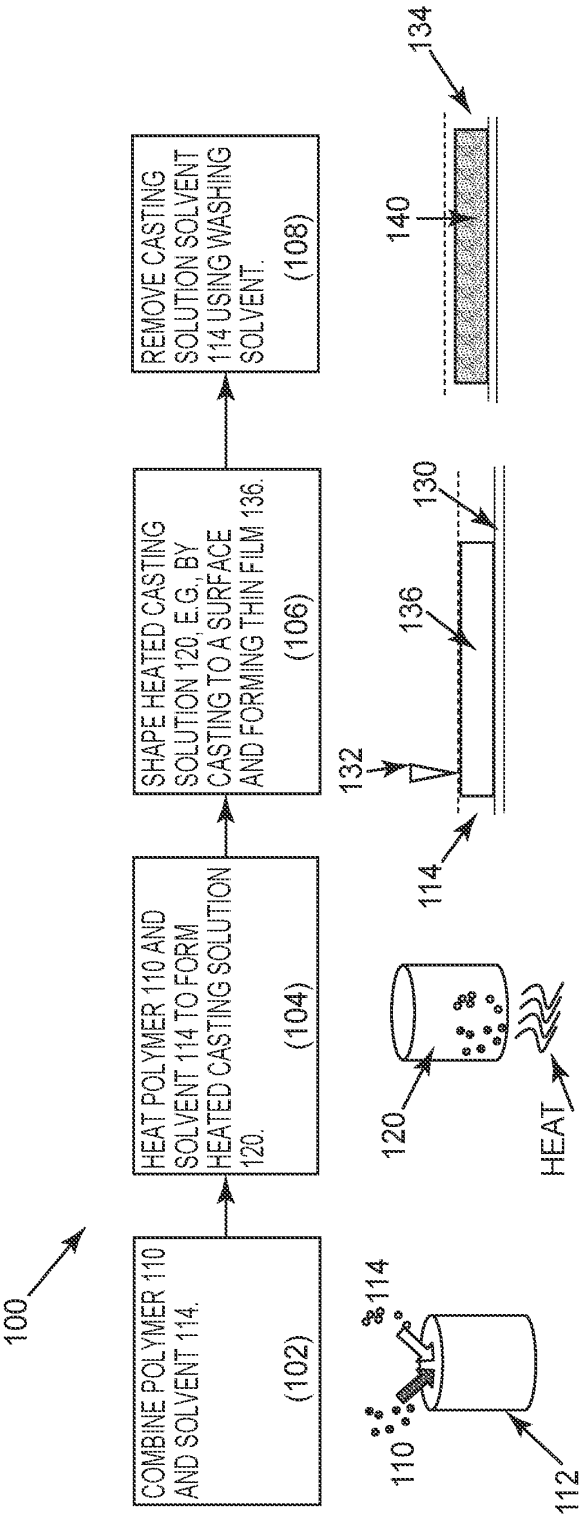


Figure 1

- 40 % PEEK in Diphenyl sulfone – Surface A at 5 Kx/10 kV

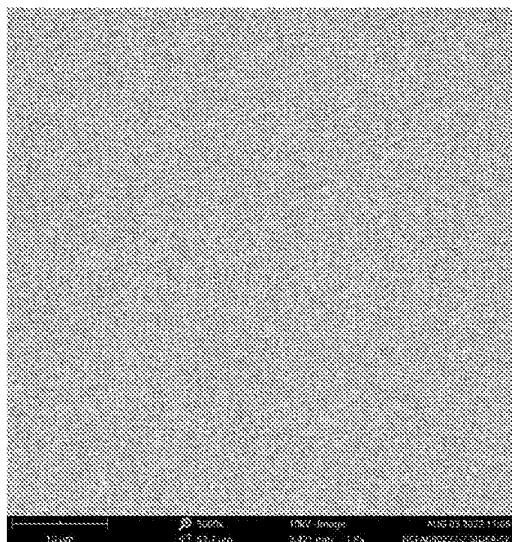


Figure 2A

- 40 % PEEK in Diphenyl sulfone – Surface B at 5 Kx/10 kV

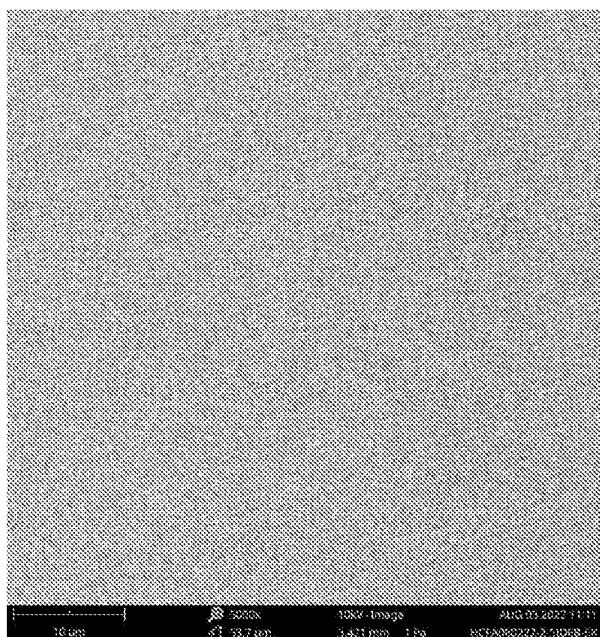


Figure 2B

- 40 % PEEK in Diphenyl sulfone – Cross section at 1 Kx/10 kV

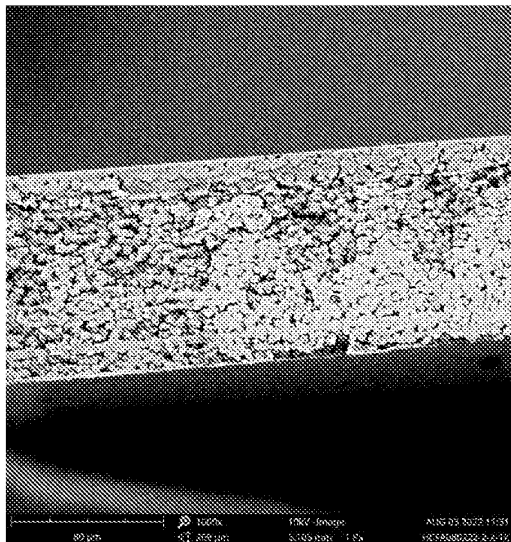


Figure 2C

- 40 % PEEK in Diphenyl sulfone – Cross section at 3 Kx/10 kV

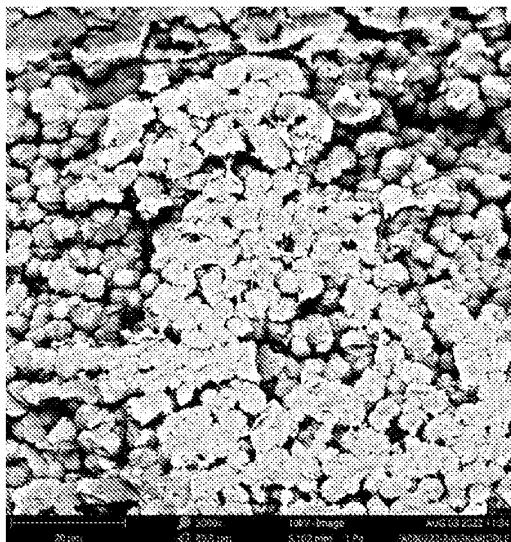


Figure 2D

20 % PEEK in Benzophenone – Surface A at 5 Kx/10 kV

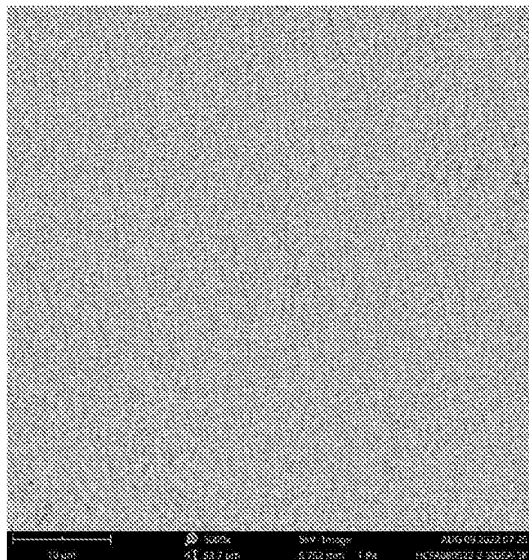


Figure 2E

- 20 % PEEK in Benzophenone – Surface B at 5 Kx/10 kV

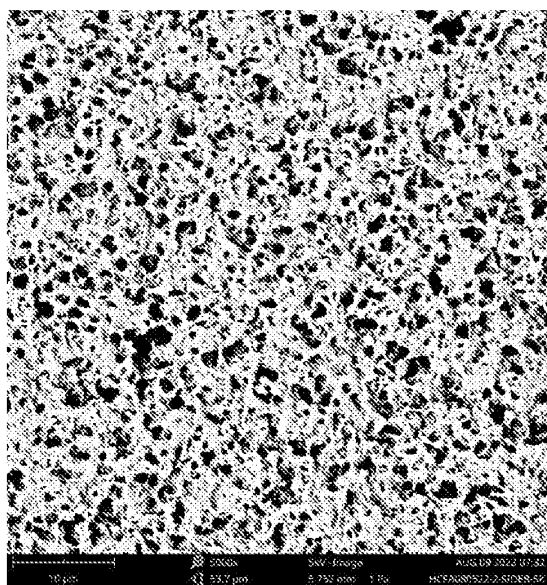


Figure 2F

20 % PEEK in Benzophenone – Cross section at 1 Kx/10 kV

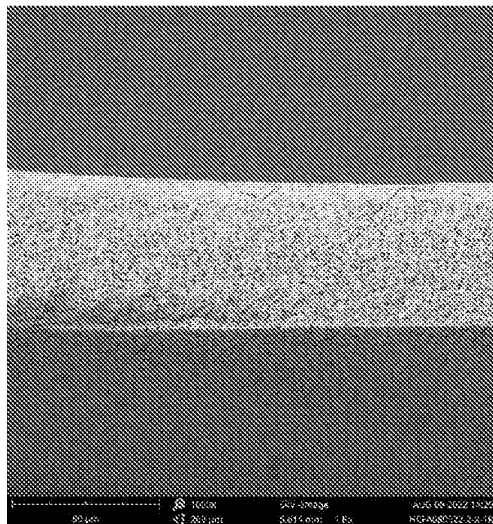


Figure 2G

- 20 % PEEK in Benzophenone – Cross section at 5 Kx/10kV



Figure 2H

- 25 % PEEK in Benzophenone – Surface A at 5 Kx/10 kV

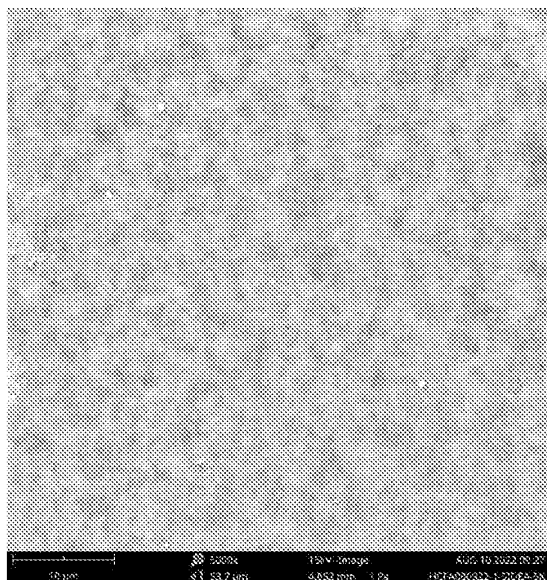


Figure 2I

- 25 % PEEK in Benzophenone – Surface B at 5 Kx/10 kV

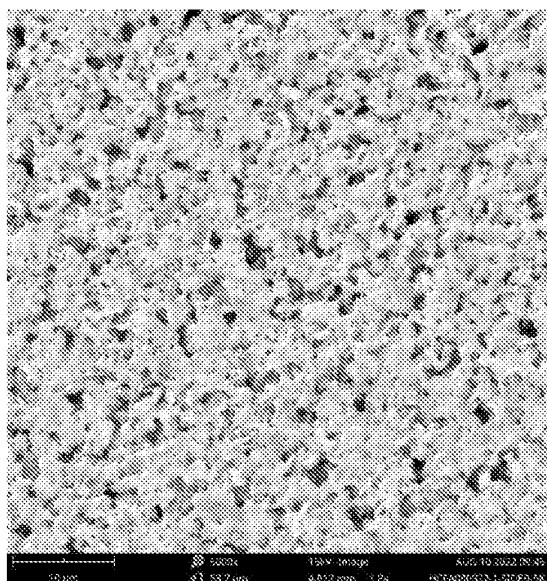


Figure 2J

- 25 % PEEK in Benzophenone – Cross section at 1 Kx/10 kV

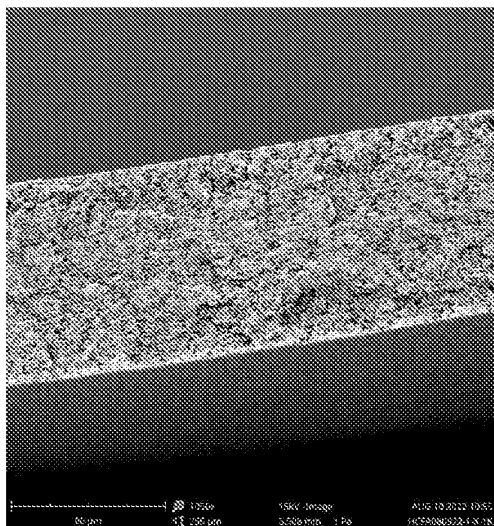


Figure 2K

- 25 % PEEK in Benzophenone – Cross section at 5 Kx/10kV

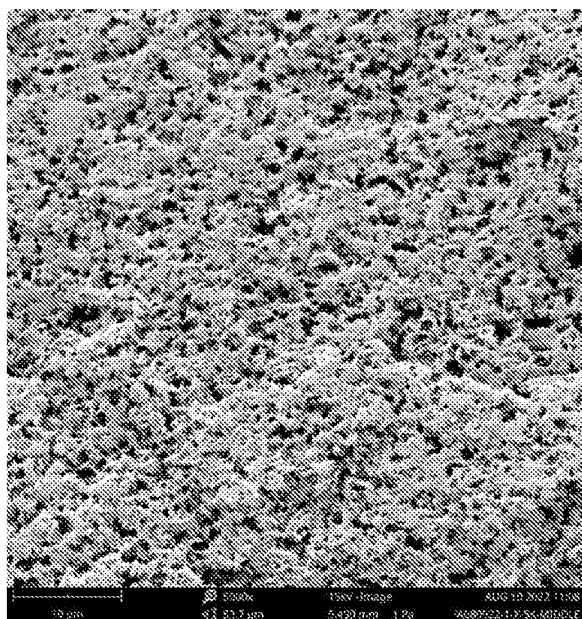


Figure 2L

- 5 % PEEK in Dimethyl Phthalate – Surface A at 5 Kx/10 kV

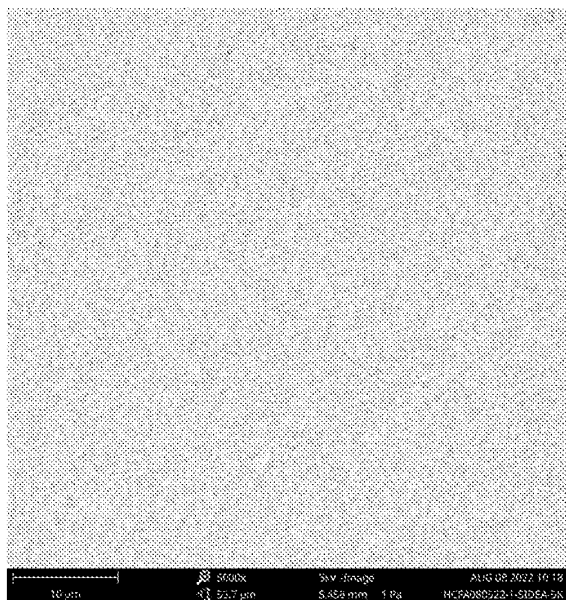


Figure 2M

- 5 % PEEK in Dimethyl Phthalate – Surface B at 5 Kx/10 kV

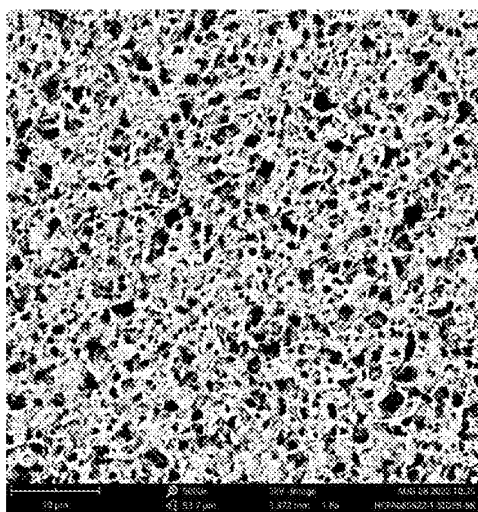


Figure 2N

- 5 % PEEK in Dimethyl Phthalate – Cross section at 1 Kx/10 kV

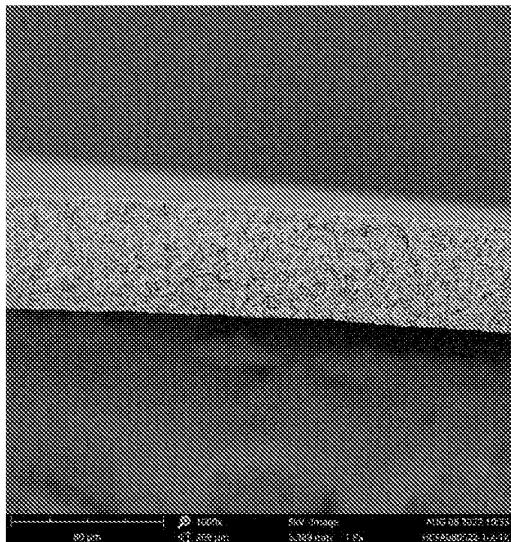


Figure 2O

- 5 % PEEK in Dimethyl Phthalate – Cross section at 5 Kx/10 kV

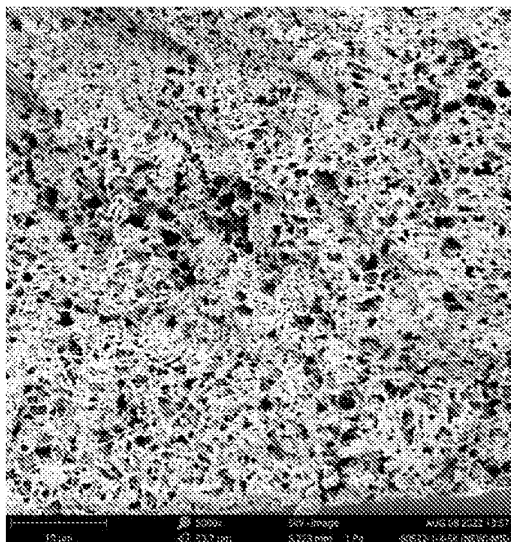


Figure 2P

20 % PEEK in Triphenylmethane – Surface A at 5 Kx/10 kV

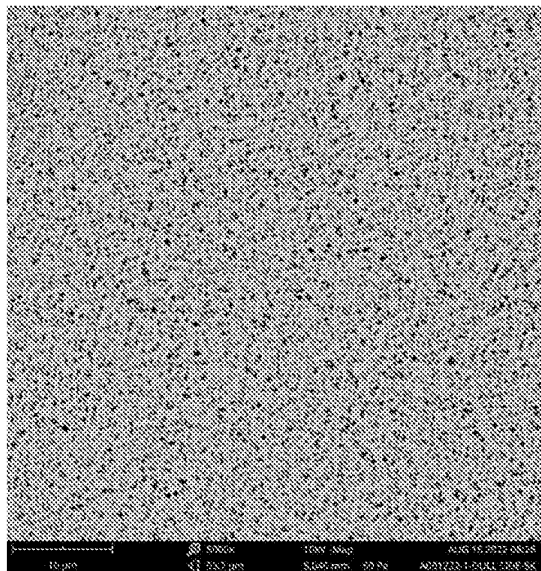


Figure 2Q

- 20 % PEEK in Triphenylmethane – Surface B at 5 Kx/10 kV

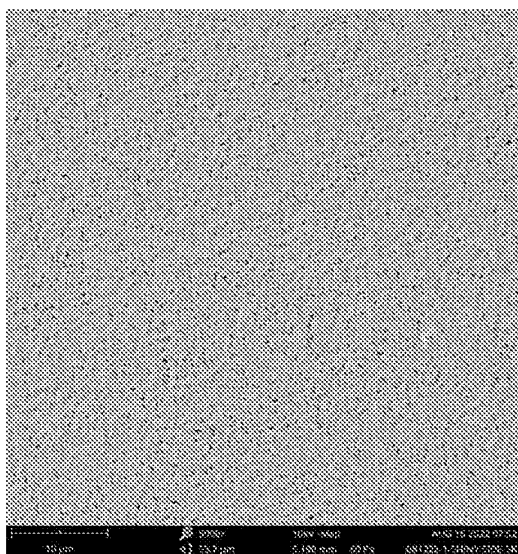


Figure 2R

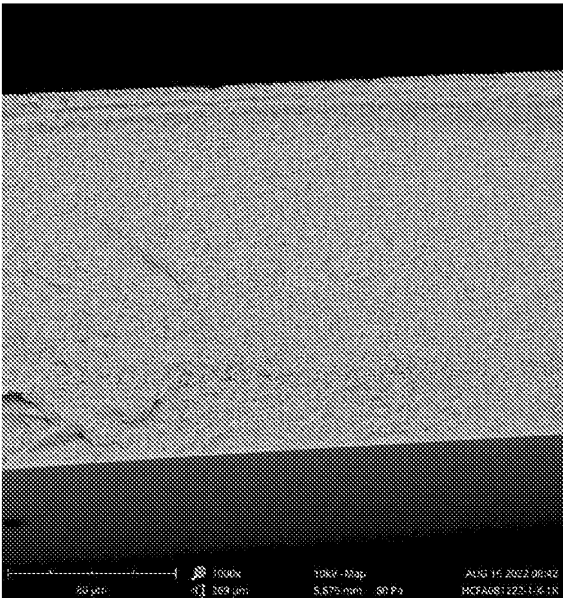


Figure 2S

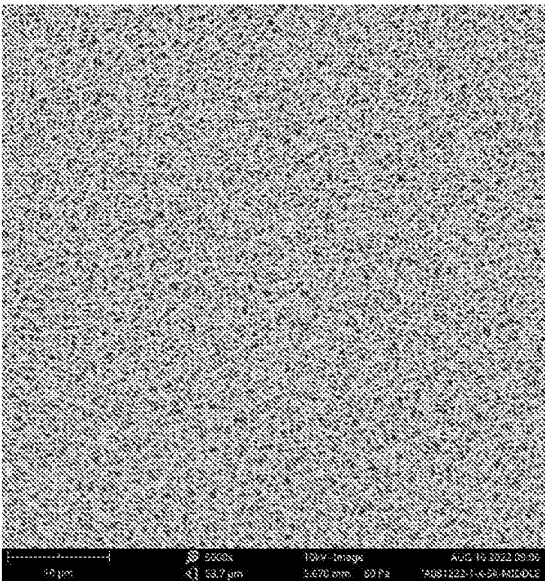


Figure 2T

RETENTION OF POLYSTYRENE G25 IN 0.1% TRITON SOLUTION

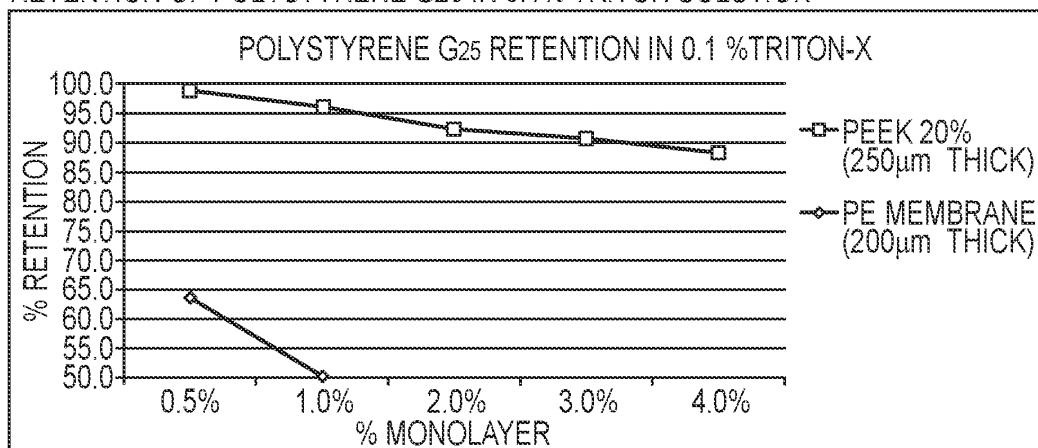
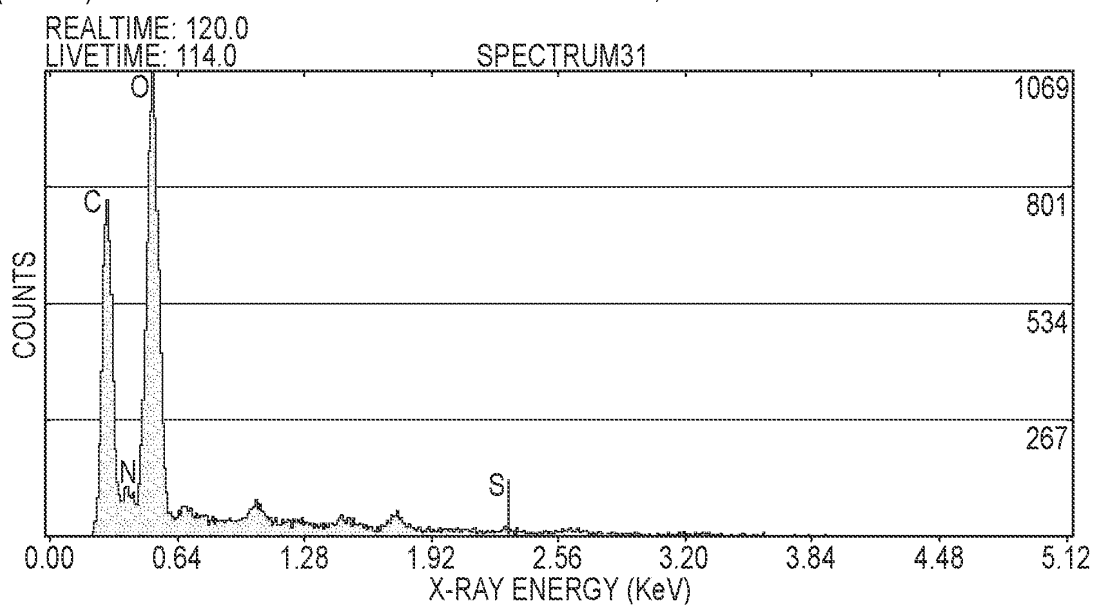


Figure 3

EDX ANALYSIS OF SULFUR CHEMICALS OF PEEK MEMBRANES MADE OF 20 % VICTREX (450 PF) POLYMER SOLVED IN TRIPHENYL METHANE, INDICATING NO SULFONATION.



QUANTITATIVE RESULTS FOR SPECTRUM 31
ANALYSIS: BULK METHOD: STANDARDLESS
ACQUIRED 17-OCT-2022, 5.0 KeV @10 eV/CHANNEL

ELEMENT	WEIGHT %	STD. DEV.	MDL	ATOMIC %	k-RATIO	INTENSITIES	PROBABILITY	FWHM (eV)	ROI (gross)
C	43.40	1.64	0.29	49.99	0.2731	3151.3	0.91	61.3	3927.44
N	8.57	1.13	0.49	8.47	0.1824	653.6	0.00	63.2	649.07
O	48.03	1.61	0.66	41.54	0.3488	5494.5	0.95	65.6	6202.69
TOTAL	100.00								

Figure 4

SEM cross section at 10 Kx of PEEK membrane made of 20 % Victrex polymer and triphenylmethane showing high degree of fibrillation.

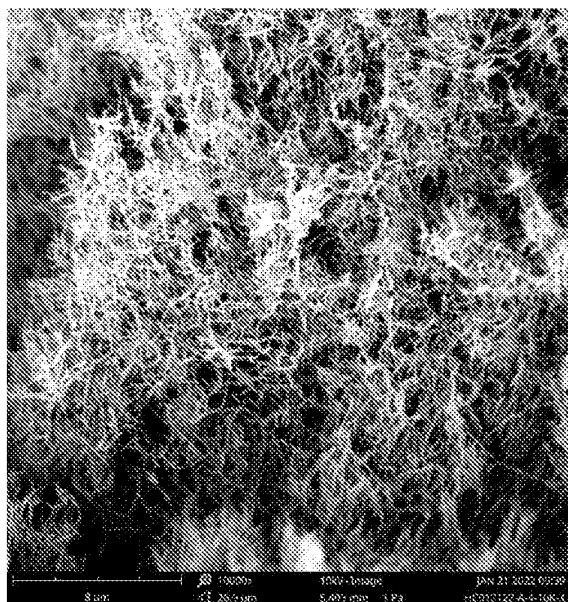


Figure 5