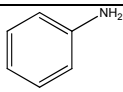
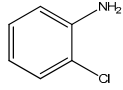
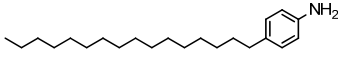
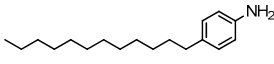
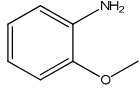
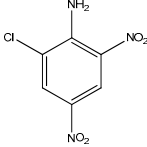
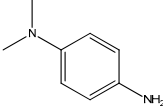
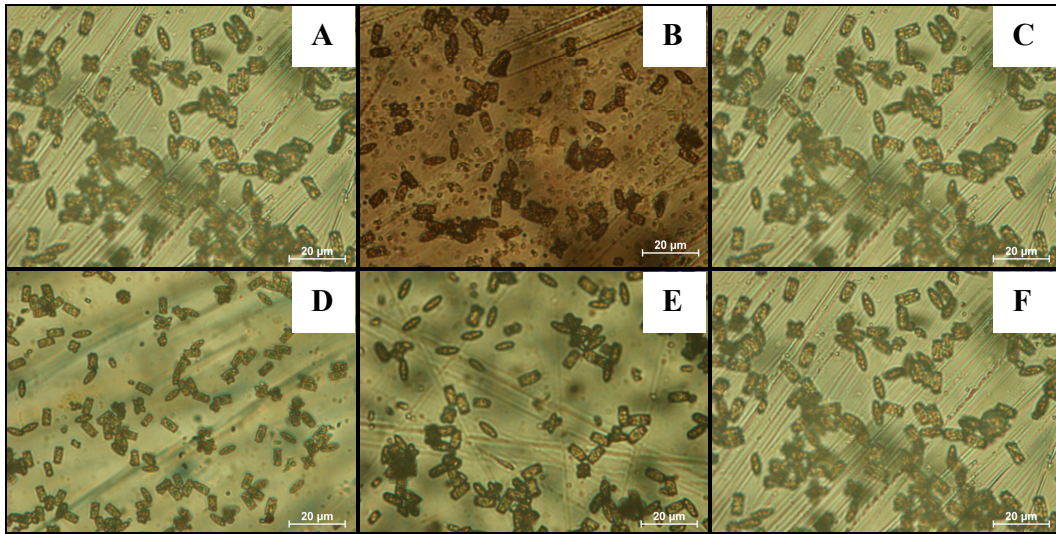


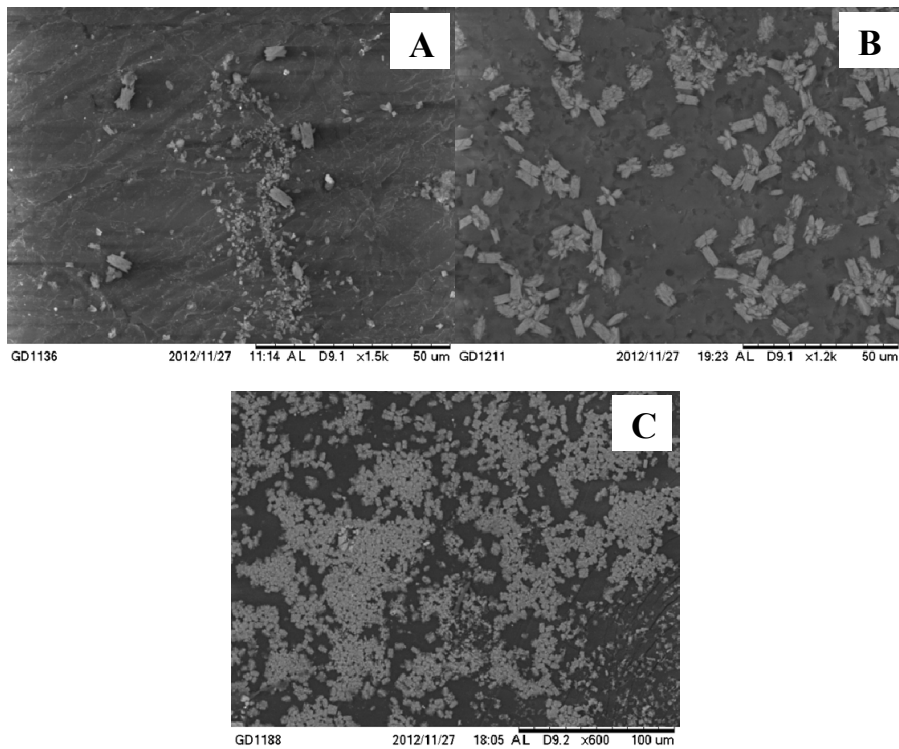
**SUPPLEMENTARY MATERIAL**

**Figure S1.** Chemical structures of amino-compounds used in the diazotation reaction of sulphonated polystyrene films.

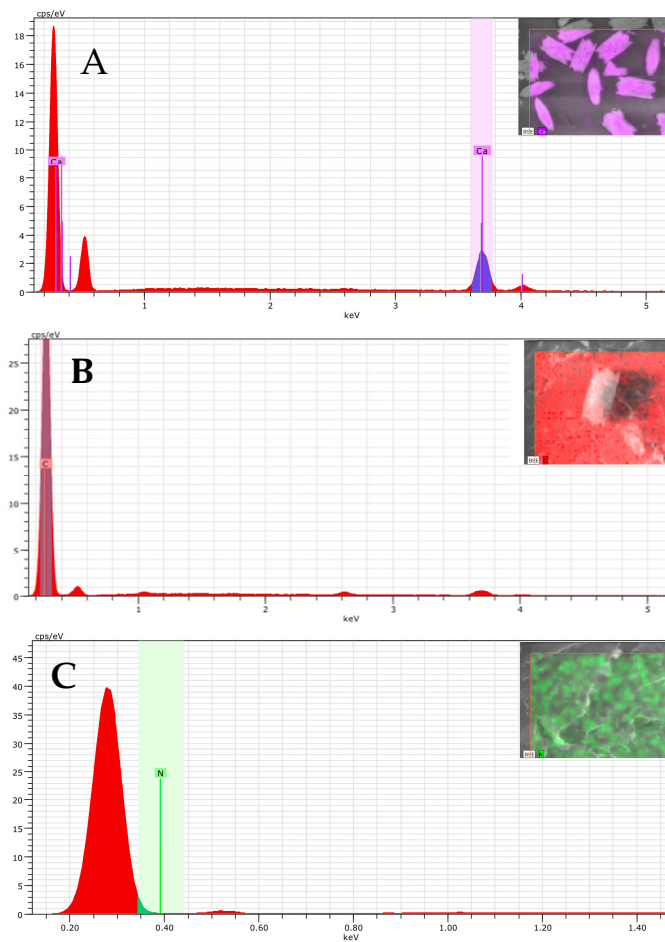
Amino-compound	Structure
Aniline	
2-Chloroaniline	
4-Hexadecylaniline	
4-Dodecylaniline	
o-Anisidine	
6-Chloro-2,4-Dinitroaniline	
4-Amino-N,N-Dimethylaniline	



**Figure S2.** Optical images of CaOx crystals grown in polystyrene films sulphonated and diazotated with: aniline (A), 2-chloroaniline (B), 4-hexadecyl aniline (C), 4-dodecyl aniline (D), o-anisidine (E), and 6-chloro-2,4-dinitro aniline (F).



**Figure S3.** SEM images of CaOx crystals grown in polystyrene films sulphonated and diazotated with: aniline (A), 2-trifluoromethyl aniline (B) and 4-nitroaniline (C).



**Figure S4.** SEM-EDS of CaOx crystals grown on sulphonated polystyrene films diazotated with: 2-trifluoromethyl aniline (A), and with aniline (B and C).