

# ToF-SIMS depth profiling of PS-*b*-PMMA block copolymers using Ar<sub>n</sub><sup>+</sup>, C<sub>60</sub><sup>++</sup> and Cs<sup>+</sup> sputtering ions

*Supporting Information*

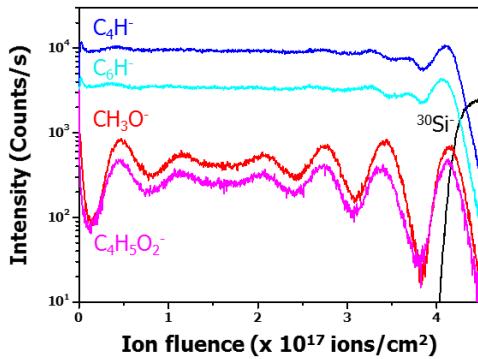
T. Terlier<sup>a,c</sup>, G. Zappala<sup>b</sup>, C. Marie<sup>a</sup>, D. Leonard<sup>c</sup>, J-P. Barnes<sup>a\*</sup> and A. Licciardello<sup>b</sup>

<sup>a</sup>: University Grenoble Alpes, F-38000 Grenoble, France  
CEA, LETI, MINATEC Campus, F-38054 Grenoble, France.

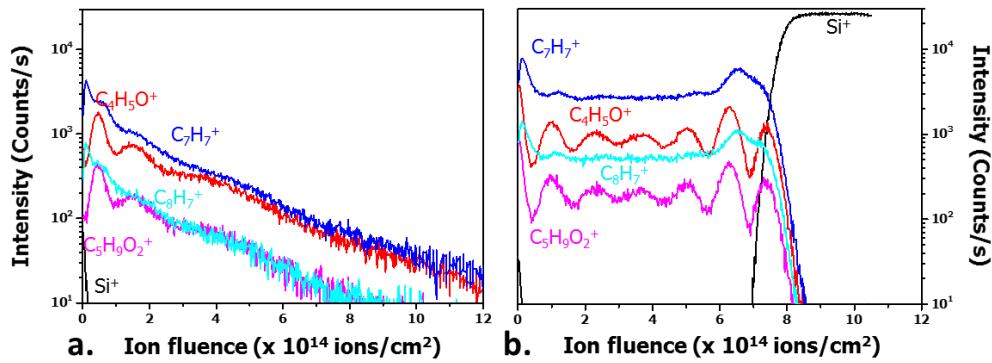
<sup>b</sup>: Dipartimento di Scienze Chimiche, Università degli Studi di Catania and CSGI,  
Viale A. Doria 6, 95125 Catania, Italy.

<sup>c</sup>: Univ Lyon, CNRS, Université Claude Bernard Lyon 1, ENS de Lyon, Institut des Sciences Analytiques, UMR 5280, 5, rue de la Doua, F-69100 Villeurbanne, France.

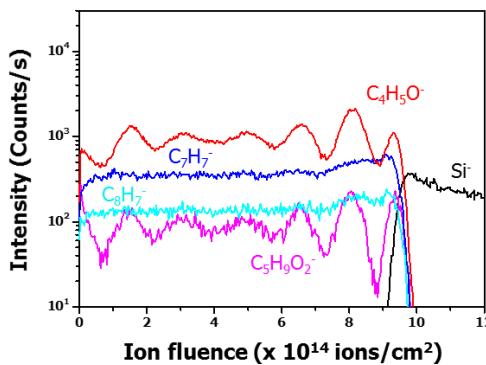
\*Email: [jean-paul.barnes@cea.fr](mailto:jean-paul.barnes@cea.fr)



**Figure S1.** Negative ion ToF-SIMS depth profile obtained with 250 eV  $\text{Cs}^+$  ion sputtering of a 220 nm PS-*b*-PMMA layer at 70/30 wt.% annealed (theoretically organized in cylindrical blocks), deposited on a silicon substrate.



**Figure S2.** Positive ion ToF-SIMS depth profile obtained with  $\text{C}_{60}^{++}$  ion sputtering, respectively, (a) without NO gas dosing and at room temperature (293 K) and (b) with NO gas dosing and at 150 K, of a 220 nm thick annealed PS-*b*-PMMA layer at 70/30 wt.% (theoretically organized in cylindrical blocks), deposited on a silicon substrate.



**Figure S3.** Negative ion ToF-SIMS depth profile obtained with  $\text{Ar}_{1500}^+$  ion sputtering at 5 keV of a 220 nm thick annealed PS-*b*-PMMA layer at 70/30 wt.% (theoretically organized in cylindrical blocks), deposited on a silicon substrate.