



Supplementary Material

## A Surface Modifier for the Production of Selectively Activated Amino Surface Groups

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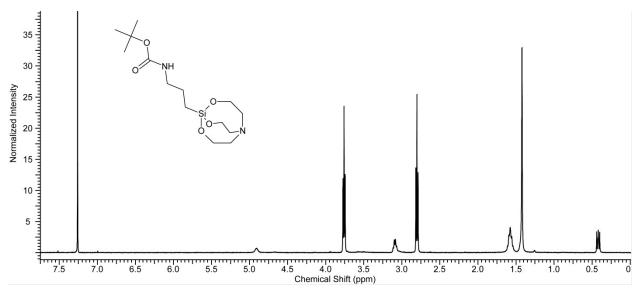


Figure S1. <sup>1</sup>H NMR spectra of BocAPS, CDCl<sub>3</sub>.

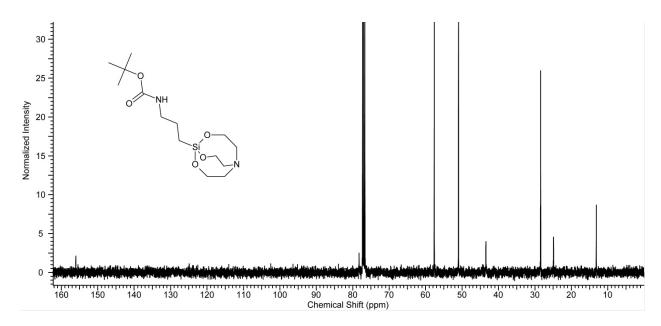
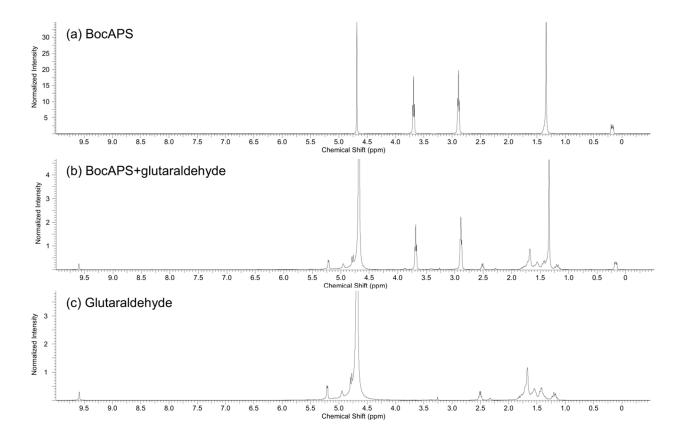


Figure S2. <sup>13</sup>C NMR spectra of BocAPS, CDCl<sub>3</sub>.

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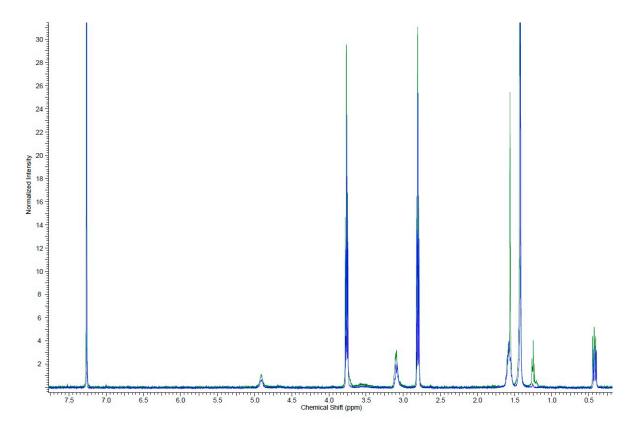
**Table S1.** Selected crystallographic data and details of refinement for N-tert-butoxycarbonylaminopropyl silatrane.

| <b>Empirical Formula</b>                  | C14H28N2O5Si                  |
|---|-------------------------------|
| Formula weight                            | 332.47                        |
| Crystal system                            | Triclinic                     |
| Space group                               | P-1                           |
| a (Å)                                     | 9.5590(10)                    |
| b (Å)                                     | 10.294(5)                     |
| c (Å)                                     | 10.763(4)                     |
| α(°)                                      | 67.14(4)                      |
| β(°)                                      | 84.85(3)                      |
| γ(°)                                      | 62.28(3)                      |
| V (ų)                                     | 858.5(5)                      |
| Z   | 2                             |
| $D_{calcd}(Mg/m^3)$                       | 1.286                         |
| Radiation (CuKα)                          | $\lambda = 1.54178 \text{ Å}$ |
| T (K)                                     | 290(2)                        |
| θ range (°)                               | 4.49-65.17                    |
| Total reflections                         | 5713                          |
| Unique reflections                        | 2920                          |
| Parameters / restraints                   | 231 / 15                      |
| R <sub>1</sub> ; wR2 ( $I > 2\sigma(I)$ ) | 0.0404, 0.0880                |
| Goodness-of-fit on F <sup>2</sup>         | 1.029                         |



**Figure S3.**  $^1H$  NMR spectra of **BocAPS** (a), glutaraldehyde (c), mixture of **BocAPS** and glutaraldehyde after 30 min (b),  $D_2O$ .

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**Figure S4.** <sup>1</sup>H NMR spectra of **BocAPS** obtained recently (green, there are residues of DMF) and after two years of storage at room conditions (blue), CDCl<sub>3</sub>.

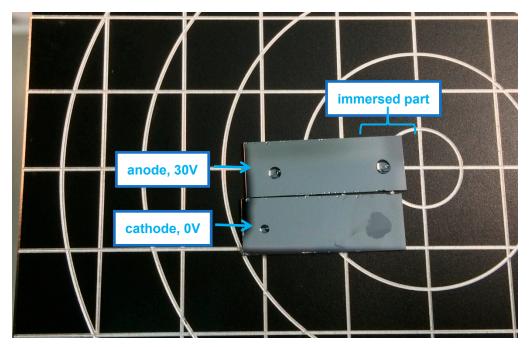
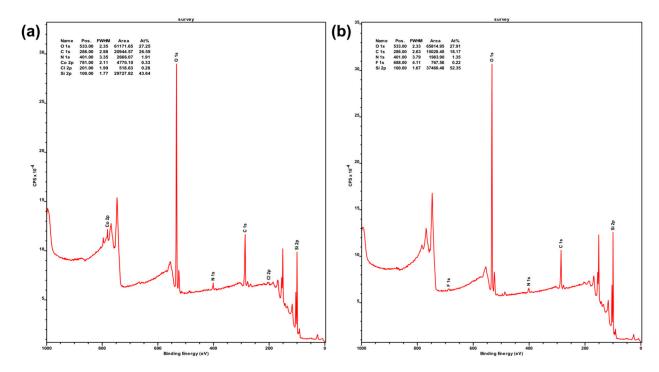
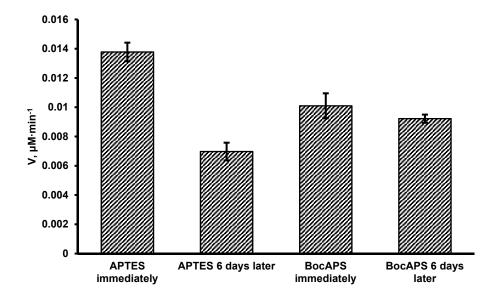


Figure S5. Wettability of parts of the anode and cathode after electrochemical removal of Boc-groups.

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**Figure S6.** Survey XPS spectra of the BocAPS-modified SiO<sub>2</sub> surface (a) and BocAPS-modified SiO<sub>2</sub> surface with removed Boc-groups (b).



**Figure S7.** The activity of glucose oxidase immobilized on silicon slides, which were modified by **APTES** or **BocAPS** and had different holding times (at room conditions) between the formation of SAM and the immobilization of the enzyme.



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