Regeneration of Pyrolyzed Photoresist Film by Heat Treatment

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Supporting Information

Regeneration of Pyrolyzed Photoresist Film (PPF) by Heat Treatment

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This supporting information contains Figures S-1, S-2, S-3 and Table S-1 with corresponding figure legends.

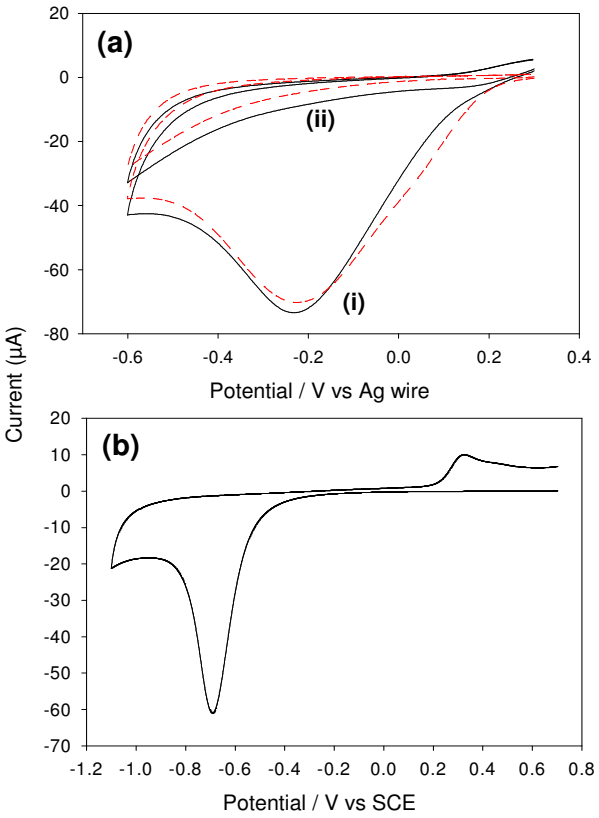

Figure S-1. (a) First (i) and second (ii) scan CVs of 1 mM NB_D in $[Bu_4N]BF_4$-ACN at as-prepared PPF (black, solid) and heat-treated PPF-NP (red, dash). (b) First scan CV in 0.1 M H_2SO_4 at heat-treated PPF-NP subsequently re-modified with NP groups.

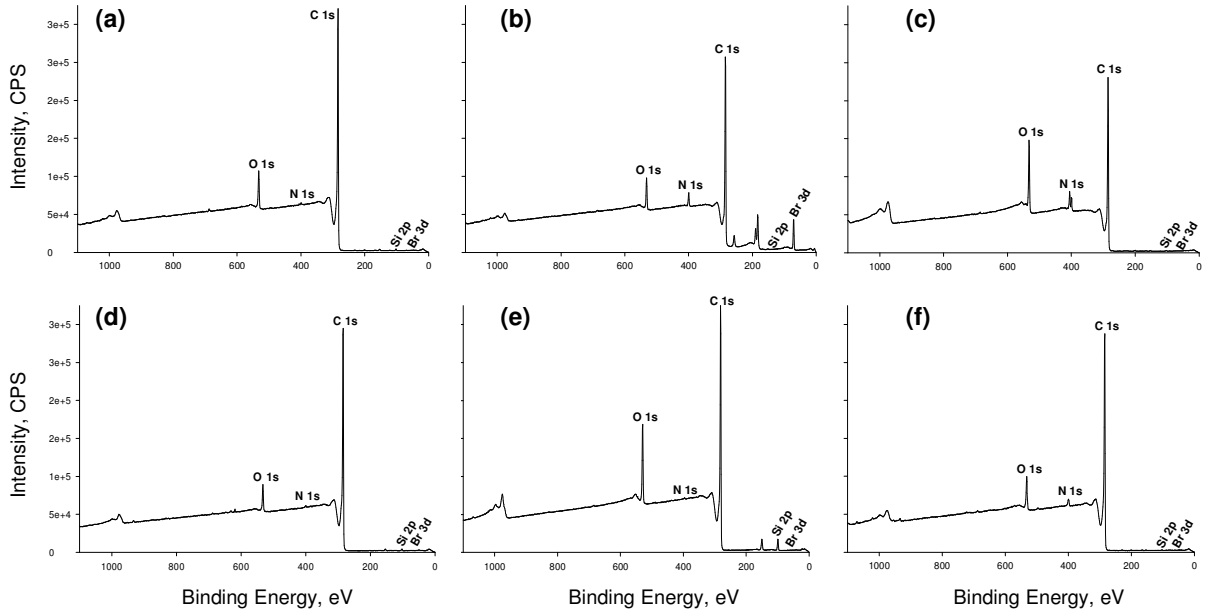

Figure S-2. XPS survey scan spectra for (a) as-prepared PPF, (b) PPF modified with BrP groups, (c) PPF modified with NP groups, (d) as-prepared PPF (heat treated), (e) PPF modified with BrP groups (heat treated) and (f) PPF modified with NP groups and subsequently heat treated. Heat treatment was performed using standard conditions (545 ˚C for 30 min under Ar).

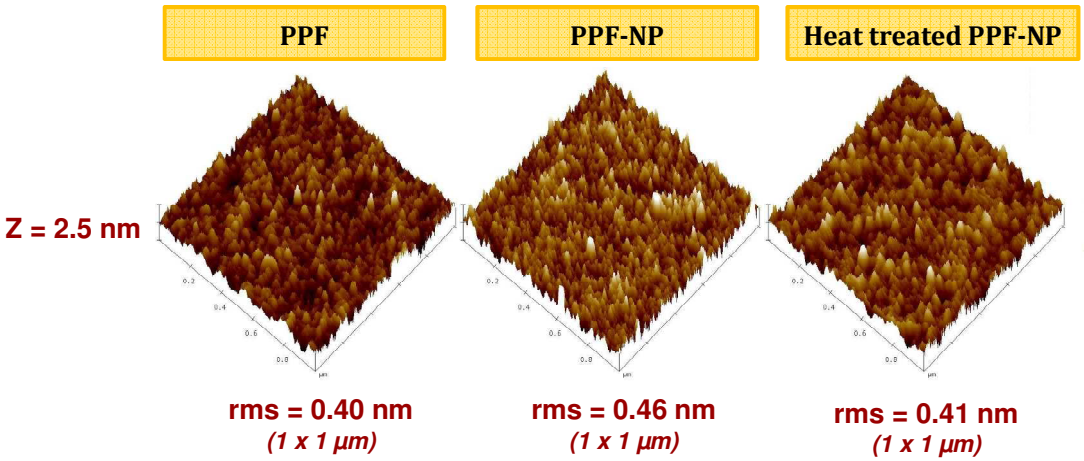

Figure S-3. Tapping mode AFM images of PPF as-prepared, after modification with an NP film and after subsequent heat treatment. Heat treatment was performed using standard conditions.

Table S-1. Water contact angle measurements at as-prepared PPF and PPF modified with NP groups before and after heat treatment. Heat treatment was performed using standard conditions.

PPF[a]	**PPF**[a] **(heat treated)**	**PPF-NP**	**PPF-NP (heat treated)**
75 ± 4 %[b]	77 ± 2 %	74 ± 4 %	76 ± 2 %
(n = 13)[c,e]	(n = 4)	(n = 9)[d]	(n = 6)[d]

[a] as-prepared PPF. [b] values reported as mean ± RSD. [c] number of individual droplets measured (2 µl volume). [d] using two replicate electrodes. [e] using three replicate electrodes.