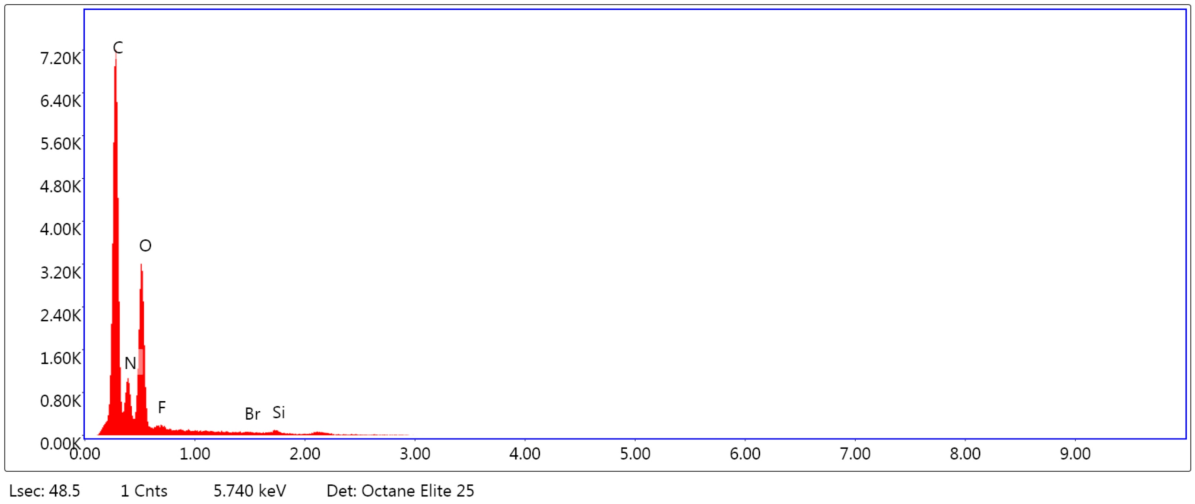

Figure S1. EDX spectrum of as-synthesized EY-APTES@PDA@PUF.

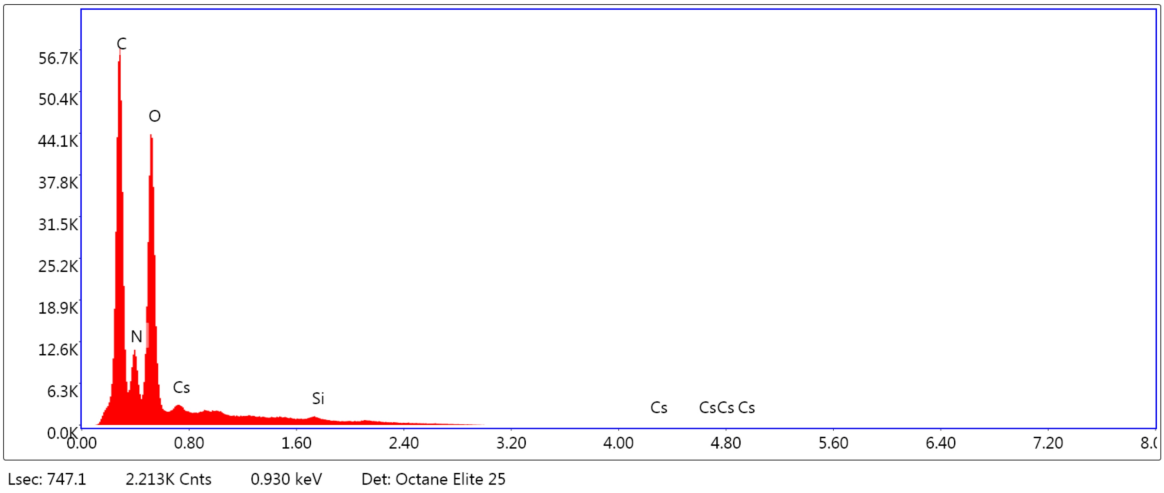

Figure S2. EDX spectrum of spent EY-APTES@PDA@PUF after 6 cycles of 2-methyl-5-nitro-isoquinolinium iodide oxidation.

Plateforme Analytique des Inorganiques
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LIMA
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67000 Strasbourg

RAPPORT D'ANALYSES

Référence : 2021-03-26-HP-Mousse en polyuréthane-1-2-V2

Nature de l'échantillon : **Mousse en polyuréthane**

Date de réception : 25/02/2021 et 26/03/2021 *Conservation* : ambiante
Date d'analyse : 31/03/2021

Techniques d'analyse :
Mise en solution par attaque acide, filtration d'un résidu solide, puis analyse par ICP-AES pour Si, analyse par ICP-MS pour Br.

Réf. LIMA-COA	Réf. PAI	Br	Si	unité
PH-240	21-02-25-HP-02	1051 ± 29	2544 ± 77	mg/kg
PH-270	21-03-26-HP-01	691 ± 19	859 ± 28	mg/kg

Signature :

Rédacteur : Anne Boos
Date : 07/04/2021
2021-03-26-HP-Mousse en polyuréthane-1-2-V2

Anne Boos
Responsable de la plateforme

25 rue Becquerel 67087 Strasbourg Cedex 2 Tél : 03 68 85 27 01 Fax : 03 68 85 27 25 email : anne.boos@unistra.fr

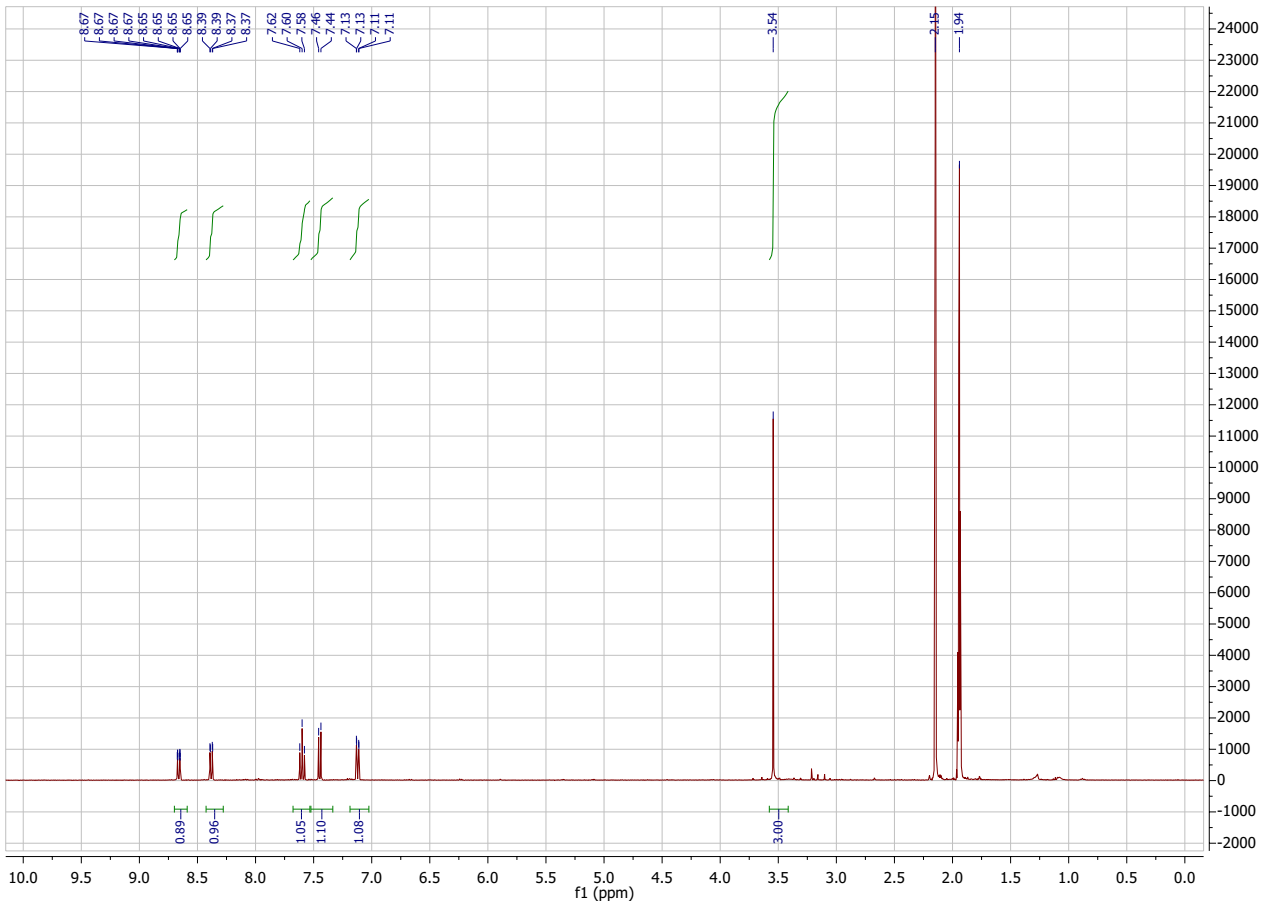

Figure S3. ^{1}H NMR (CD_3CN) spectrum of 2-methyl-5-nitro-isoquinolone.

^{1}H NMR (CD_3CN, 400.13 MHz): δ 8.66 (dq, 1H), 8.38 (dd, 1H), 7.60 (t, 1H), 7.45 (d, 1H), 7.12 (dd, 1H), 3.54 (s, 3H, NMe).

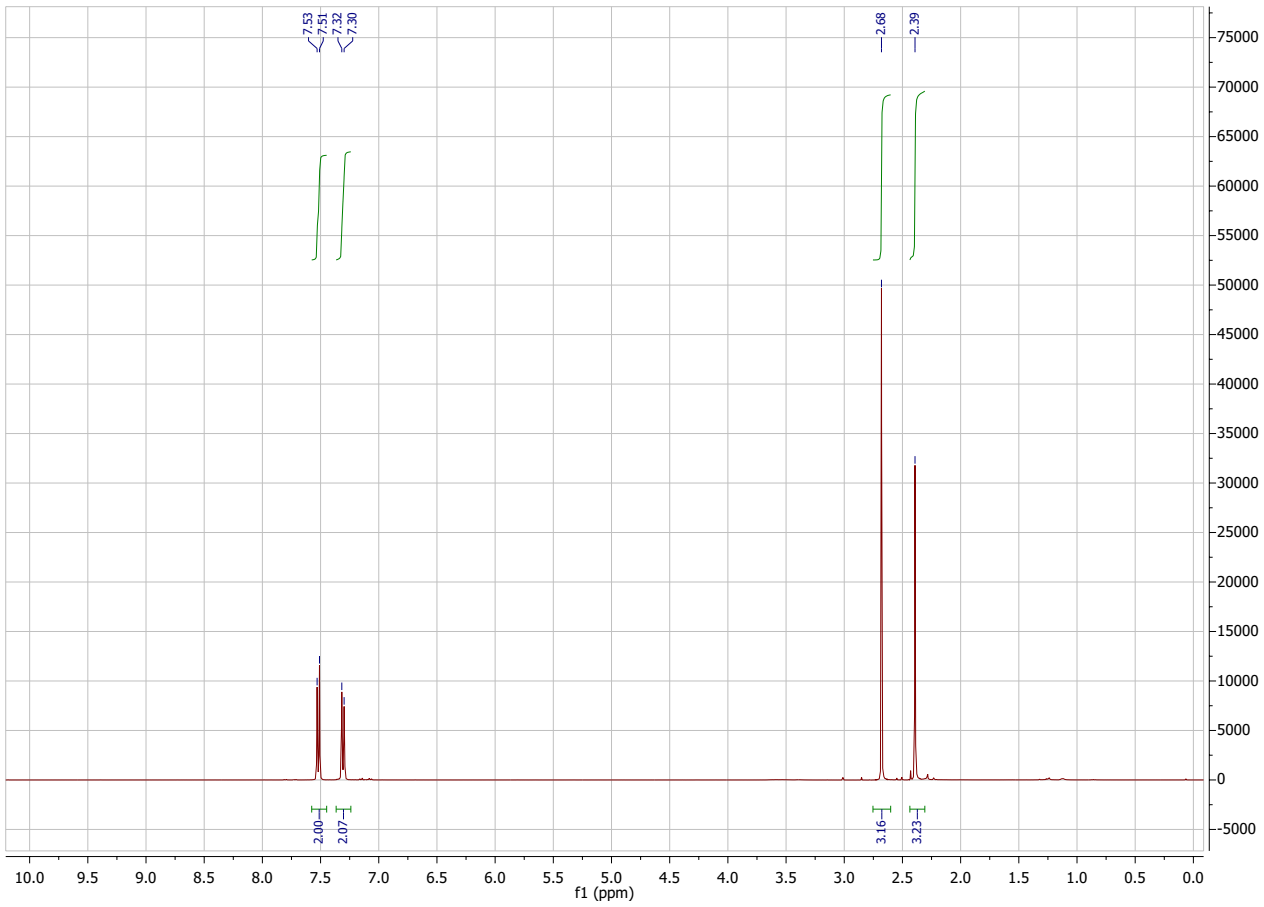

Figure S4. ^{1}H NMR ($CDCl_3$) spectrum of *p*-tolyl methyl sulfoxide.

^{1}H NMR ($CDCl_3$, 400.13 MHz): δ 7.52 (d, 2H), 7.31 (d, 2H), 2.68 (s, 3H, CH_3SO), 2.39 (s, 3H, *p*-Me).

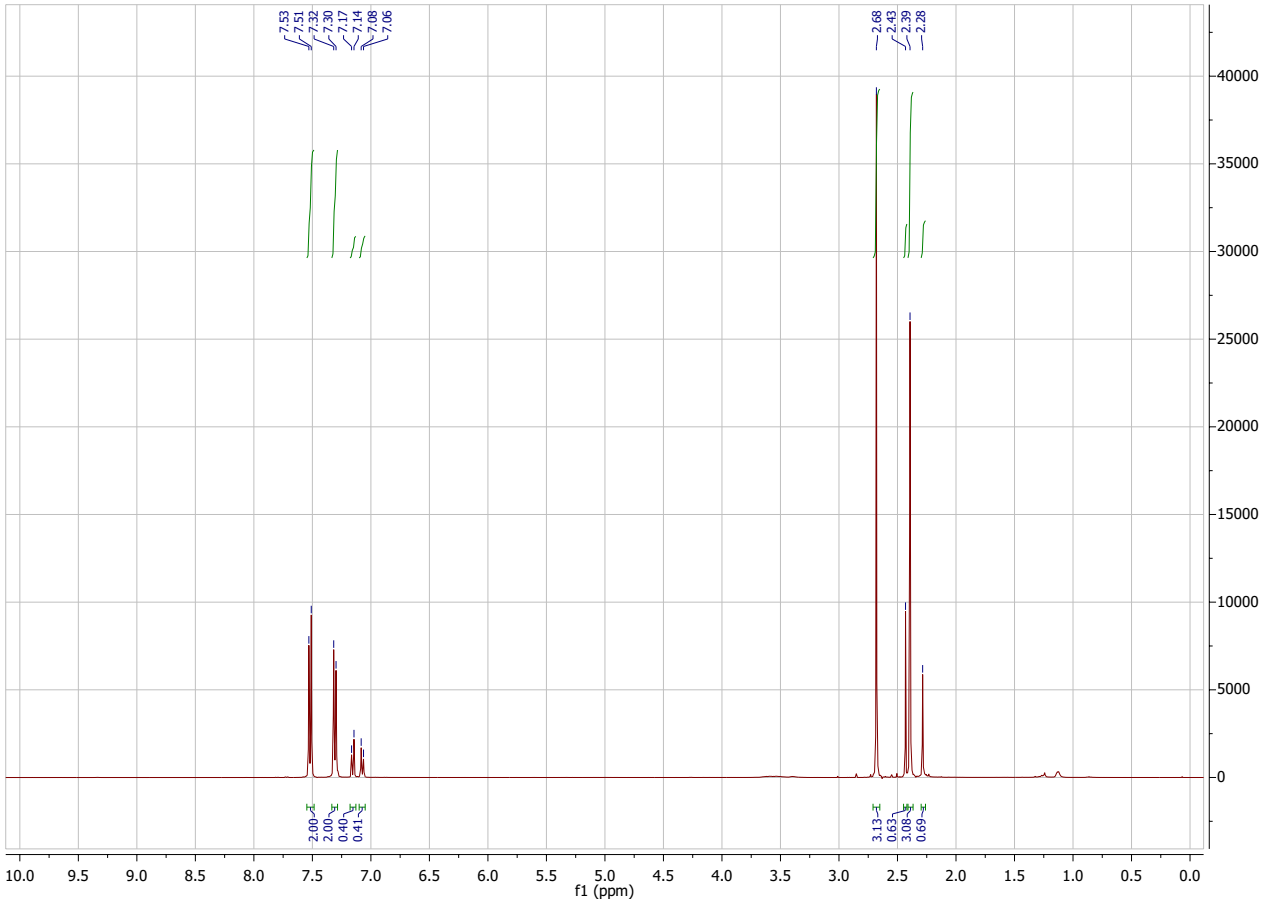

Figure S5. ^{1}H NMR ($CDCl_3$) spectrum of a crude reaction mixture of *p*-tolyl methyl sulfide oxidation.

^{1}H NMR spectrum of the 3rd run with EY-APTES@PDA@PUF (EY 0.18 mol%) in CH_3CN/H_2O (4:1) under 24 W white LED irradiation at 30-35 °C under O_2 balloon atmosphere after 48 h reaction (see Figure 7, run 3).

p-tolyl methyl sulfide (17%)

^{1}H NMR ($CDCl_3$, 400.13 MHz): δ 7.16 (d, 2H), 7.07 (d, 2H), 2.43 (s, 3H, CH_3S), 2.28 (s, 3H, *p*-Me).

p-tolyl methyl sulfoxide (83%)

^{1}H NMR ($CDCl_3$, 400.13 MHz): δ 7.52 (d, 2H), 7.31 (d, 2H), 2.68 (s, 3H, CH_3SO), 2.39 (s, 3H, *p*-Me).