

Supplementary Material**Controlled delivery of levothyroxine using porous silicon as a drug nanocontainer**

Soheila Kashanian,^{a*} Elham Rostami,^b Frances J. Harding,^c Steven J. P. McInnes,^c Sameer Al-Bataineh^c and Nicolas H. Voelcker^{c*}

^a Faculty of Chemistry, Sensor and Biosensor Research Center (SBRC) & Nanoscience and Nanotechnology Research Center (NNRC), Razi University, Kermanshah, I.R. Iran

^b Department of Chemistry, Bandar Jask Branch, Islamic Azad University, Bandar Jask, Iran.

^c ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, Mawson Institute, University of South Australia, Adelaide, South Australia, Australia.

* Corresponding authors. Email: nico.voelcker@flinders.edu.au; kashanian_s@yahoo.com

Table S1. WCA of modified pSi surfaces.

Sample (Functionality)	WCA (°)
Fresh pSi (Si-H)	110 ± 2
pSi-Ox (Si-OH)	10 ± 1
pSi-APTES (-NH ₂)	23 ± 2
pSi-Ox-levothyroxine	26 ± 3
pSi-APTES-levothyroxine	34 ± 3

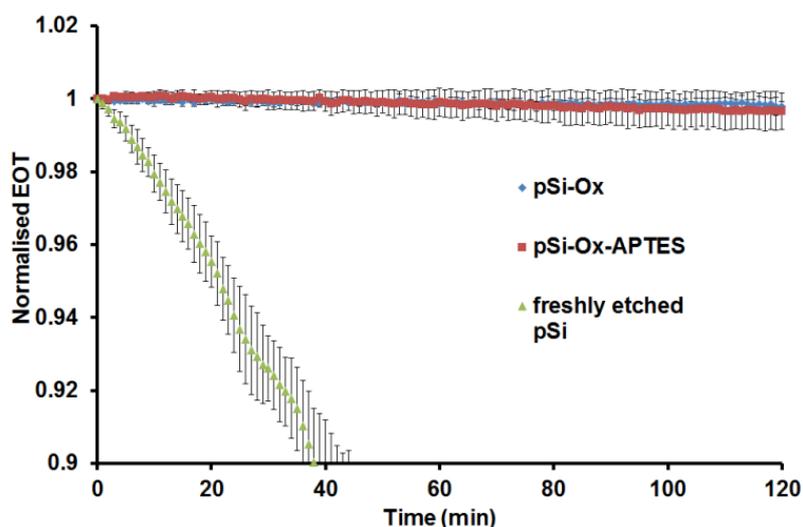


Fig S1. Degradation curves of fresh pSi, pSi-Ox and pSi-Ox-APTES films. Error bars are the standard deviation (n=3).

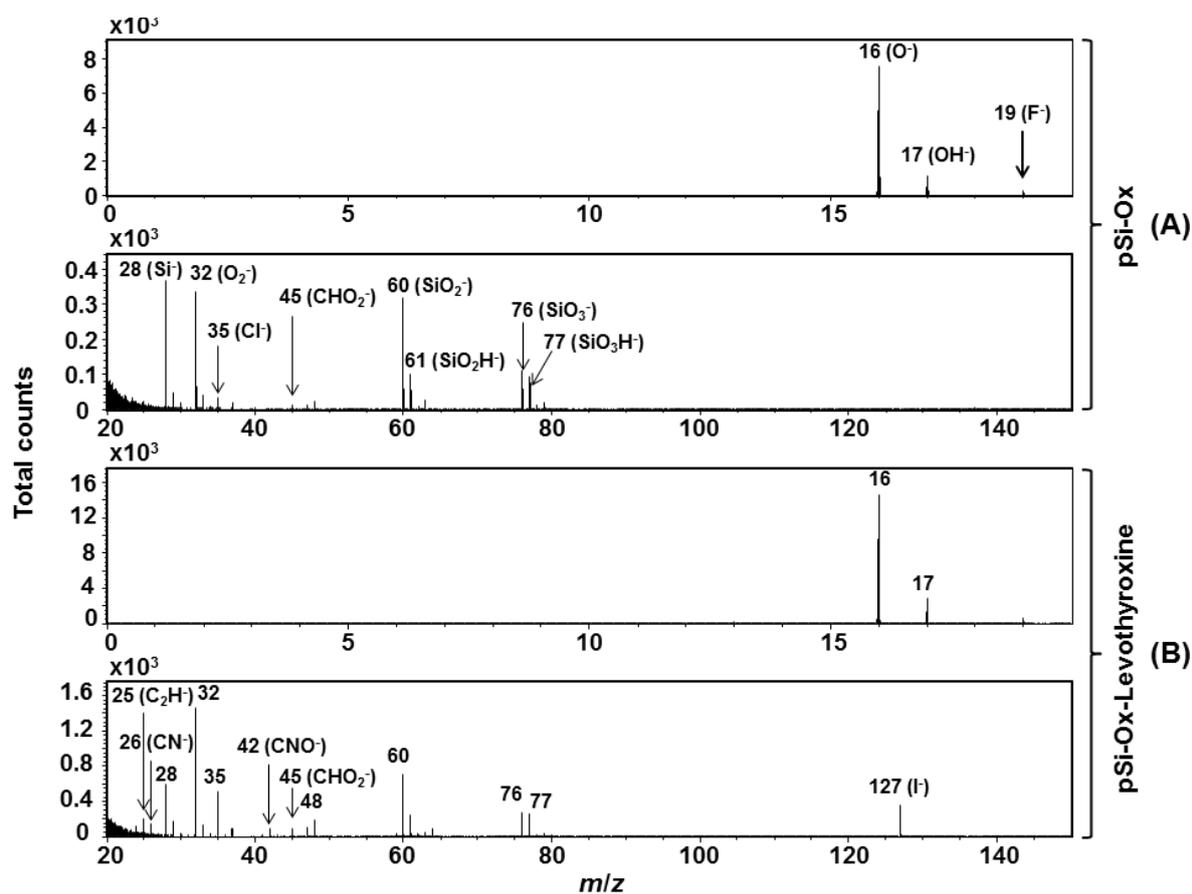


Fig S2. Representative negative ion ToF-SIMS mass spectra (0-150 m/z) acquired from the oxidised pSi layer on the pSi-Ox cross section: (A) before and (B) after levothyroxine loading. The identified fragment ions in (A) and (B) are characteristic of oxidised silicon and levothyroxine, respectively.