

Towards the Chemical Analysis of Diatoms' Silicon Storage Pools: A Differential Centrifugation-Based Separation Approach

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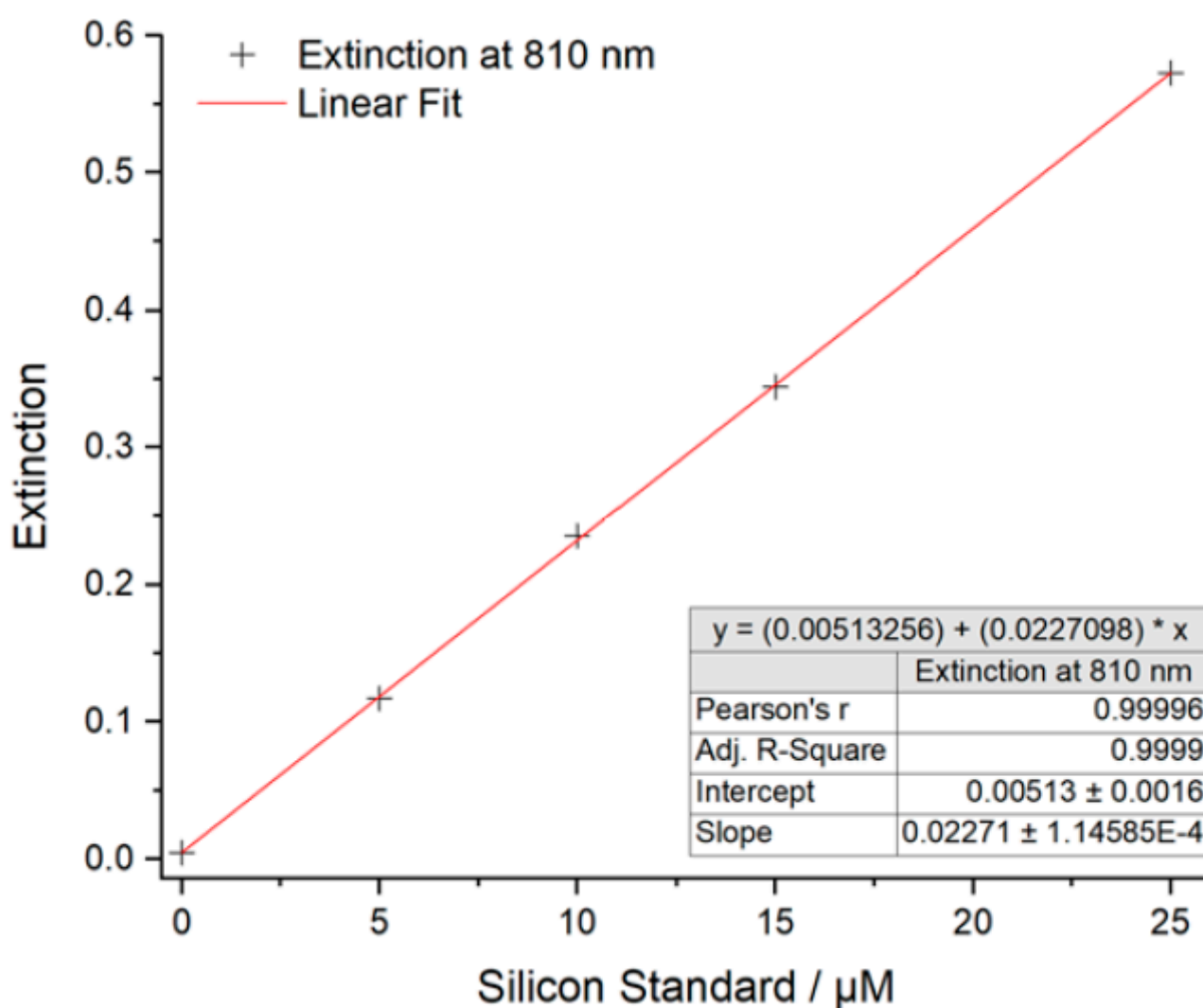


Figure S1. External calibration curve for mild alkaline treatment. Molar absorptivity: 22,710 L·mol⁻¹·cm⁻¹.

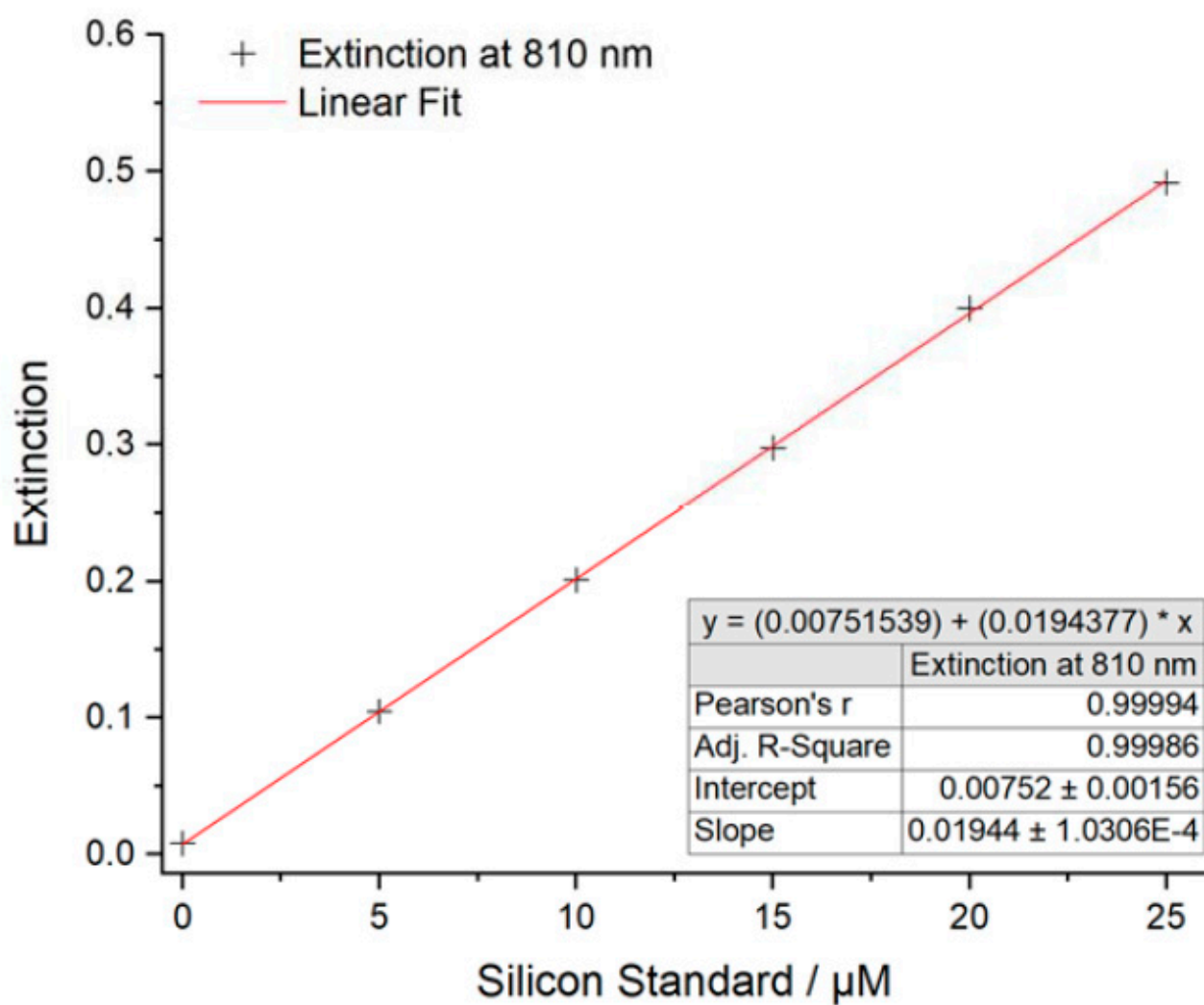


Figure S2. External calibration curve for autoclave-induced digestion (AID). Molar absorptivity: $19,440 \text{ L} \cdot \text{mol}^{-1} \cdot \text{cm}^{-1}$.

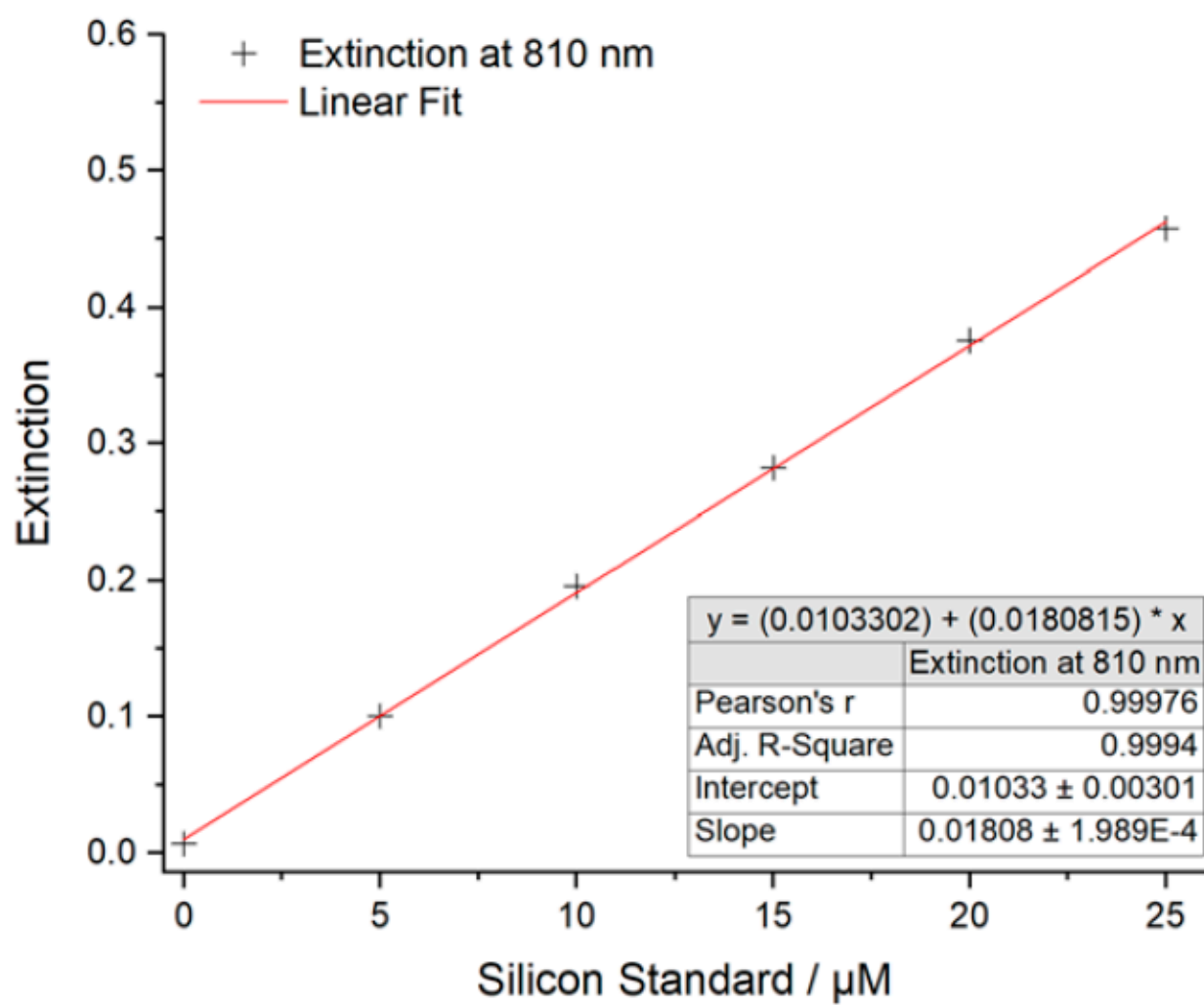


Figure S3. External calibration curve for oven-induced digestion (OID). Molar absorptivity: 18,080 $\text{L}\cdot\text{mol}^{-1}\cdot\text{cm}^{-1}$.

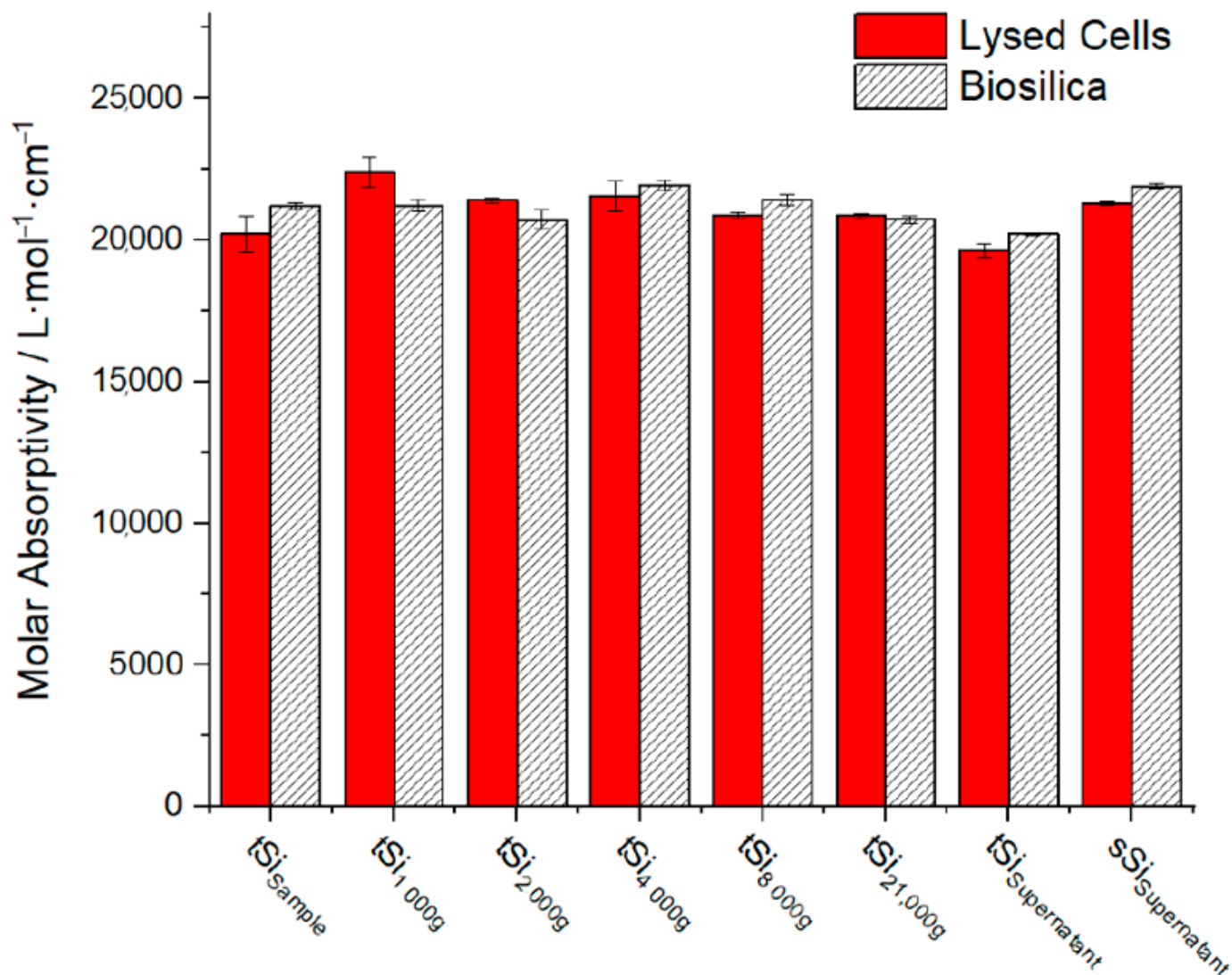


Figure S4. Molar absorption coefficients for mild alkaline treatment obtained through standard addition. Standards were added to aliquots of each fraction (3-point calibration curves: 0 μ M, 5 μ M and 10 μ M silicon standard). Error bars: Lysis and differential centrifugation was repeatedly performed, so that two samples were obtained for each fraction. All measurements were performed in parallel on these two sample sets. The error bars represent the range between the two molar absorptivities obtained from the slope of the calibration curves.

Mean molar absorptivity of the lysed cell fractions: 21,030 $\text{L}\cdot\text{mol}^{-1}\cdot\text{cm}^{-1}$.

Mean molar absorptivity of the biosilica fractions: 21,170 $\text{L}\cdot\text{mol}^{-1}\cdot\text{cm}^{-1}$.