Supplementary material

Nanostructured silver coating as a stationary phase for capillary gas chromatography

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![Fig. S1. The EDS spectrum of the inner surface of silver column.](image)

Table S1 The percentage of the inner surface of silver column from EDS characterization.

| elements | weight percentage (%) | atom percentage (%) |
|----------|------------------------|---------------------|
| Ag       | 51.79                  | 16.71               |
| Si       | 23.06                  | 28.58               |
| O        | 25.15                  | 54.71               |
Fig. S2. The chromatogram of 1-bromoalkanes on the silver column.

Chromatographic peaks: 1-bromobutane (1), 1-bromooctane (2) and 1-bromododecane (3).

Conditions: column temperature at 80 °C; the flow rate of carrier gas held at 0.5 mL min⁻¹ (22 cm s⁻¹) and up to 3 mL min⁻¹ at a rate of 3 mL min⁻¹; the injection volume was 0.01 μL; the injection split was 50:1.

Fig. S3. Repeatability of chromatographic separation of n-alkanes on the silver column.

Chromatographic peaks: n-hexane (1), n-heptane (2), n-octane (3), n-nonane (4), n-decane (5), n-undecane (6), n-dodecane (7), n-tridecane (8), n-tetradecane (9) and n-hexadecane (10).

Conditions: column temperature held at 31 °C for 2.5 min and up to 140 °C for 15 min at a rate of 50 °C min⁻¹; the flow rate of carrier gas held at 0.3 mL min⁻¹ (15 cm s⁻¹) for 2.5 min and up to 3 mL min⁻¹ at a rate of 3 mL min⁻¹; the injection volume was 0.01 μL; the injection split was 100:1.