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Filament Assisted Chemical Vapor Deposited organosilicate as chemical layer for nanometric hydrocarbon gas sensors

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Highlights

- SiOCH thin films are deposited by FACVD from Methyltriethoxysilane.
- The optimized films present a high affinity toward toluene and pentane.
- K values are enhanced thanks to the presence of porosity and isolated ethoxy bonds.
- The functionalization of integrated NEMS gas sensors is reported.

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