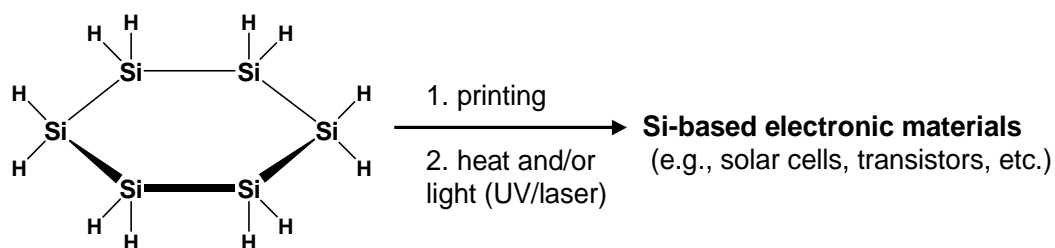


allows the deposition of silane-based features with linewidths $<10\ \mu\text{m}$.^{3,4} Assuming silicon-based materials with good electrical properties will be developed, there may be significant cost advantages associated with the ability to controllably deposit the semiconductor in a metered fashion.



- [1] “Amine-Promoted Disproportionation and Redistribution of Trichlorosilane: Formation of Tetradeca-chlorocyclohexasilane Dianion” S.-B. Choi, B.-K. Kim, P. Boudjouk, D. G. Grier, *J. Am. Chem. Soc.* **2001**, *123*, 8117
- [2] “Printed Silicon as Diode and FET Materials – Preliminary Results” S. Han, X. Dai, P. Loy, J. Lovaasen, J. Huether, J.M. Hoey, A. Wagner, J. Sandstrom, D. Bunzow, O.F. Swenson, I.S. Akhatov, D.L. Schulz, *J. Non-Cryst. Solids* (available online DOI 10.1016/j.jnoncrysol.2007.10.090).
- [3] “Collimated Aerosol Beam Deposition: Sub 5- μm Resolution of Printed Actives and Passives” D.L. Schulz,; J.M. Hoey, D. Thompson, O.F. Swenson, S. Han, J. Lovaasen, X. Dai, C. Braun, K. Keller, I.S. Akhatov, *IEEE Adv. Pack. – Proc.*, 7th Annual US Display Corporation Flexible Electronics and Displays Conference (submitted October 19, 2007).
- [4] “Aerosol flow through a long micro-capillary: collimated aerosol beam” I.S. Akhatov, J.M. Hoey, O.F. Swenson, D.L. Schulz, *Microfluid. Nanofluid.*, (available online DOI 10.1007/s10404-007-0239-3).

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