High capacitance 3D MIM structures achieved by ALD deposited TiO_2 for advanced DRAM applications

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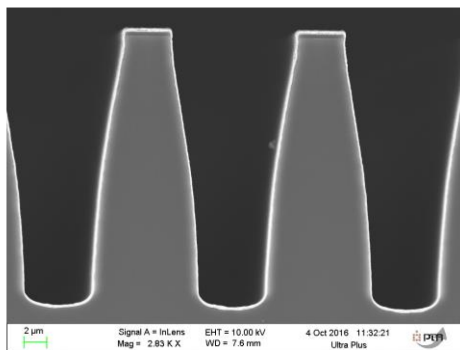

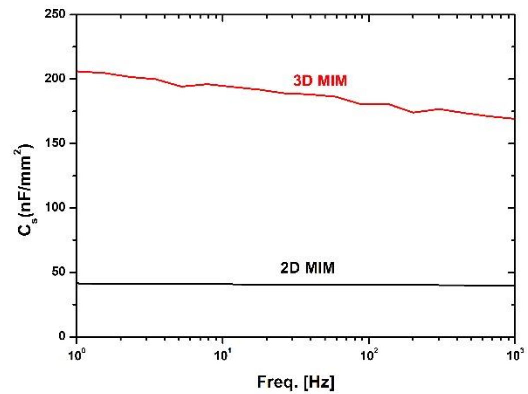

Fig.1.a Tapered silicon features used as a substrate to deposit 3D MIM structure

Fig.1.b Difference in capacitance density between 2D MIM and 3D MIM with TiO_2 insulator.

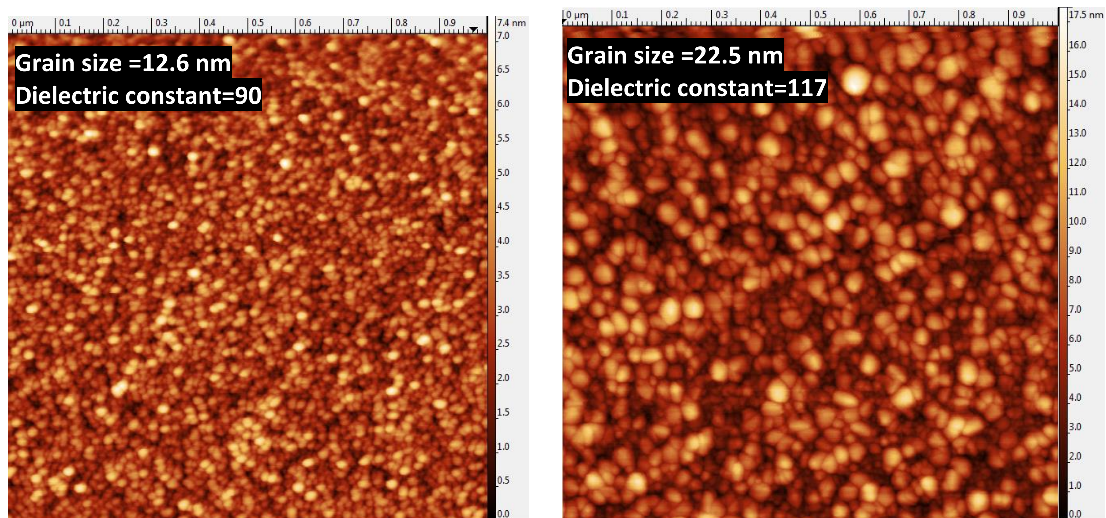

Fig.2. Influence of TiO_2 grain size on its dielectric constant