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SUPPORTING INFORMATION

The quest towards epitaxial BaMgF4 thin films: exploring MOCVD as a chemical scalable approach for the deposition of complex metal fluoride films

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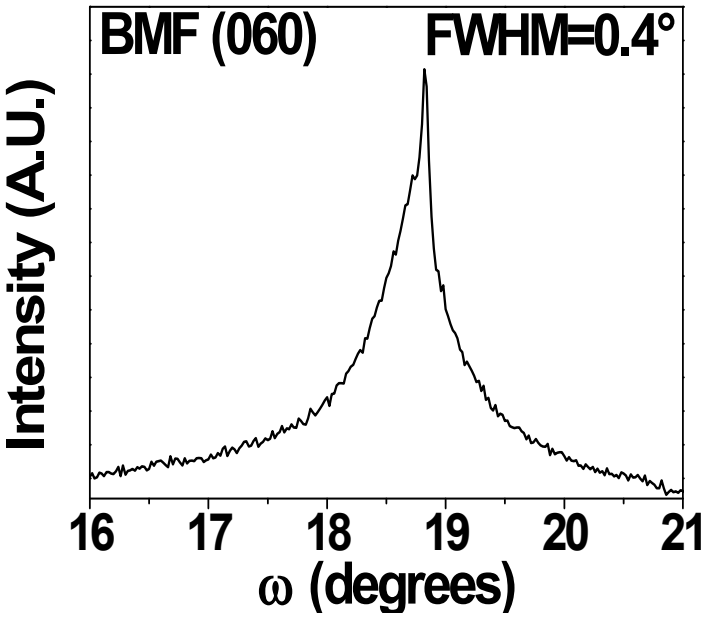

Fig. S1. Rocking curve of the 060 reflection of the BMF film grown by C-MOCVD on STO (100) substrate with a P_{O_2} of 2.5 Torr at 700 °C.

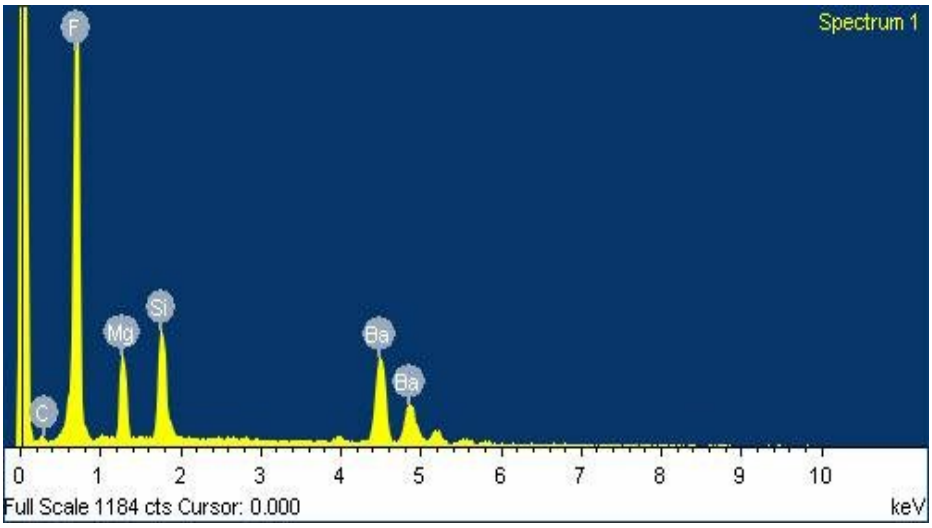

Fig. S2a. EDX spectrum of a BMF film deposited on Si(100) with C-MOCVD at 700°C with a P_{O_2} of 2.5 Torr.

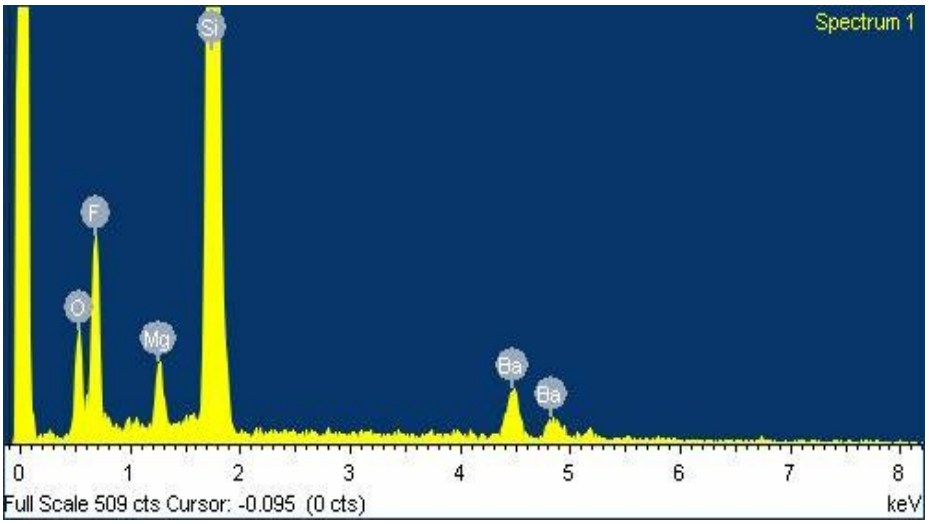

Fig. S2b. EDX spectrum of a BMF film deposited on Si (100) with C-MOCVD at 700°C with a P_{O_2} of 5.6 Torr.

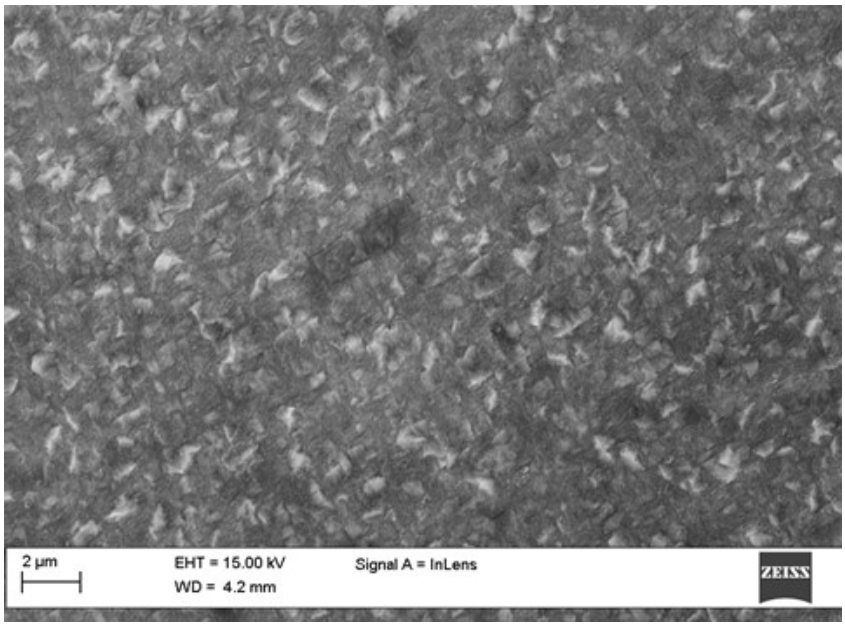

Fig. S3. FE-SEM image of a BMF film deposited with C-MOCVD at 600 °C.

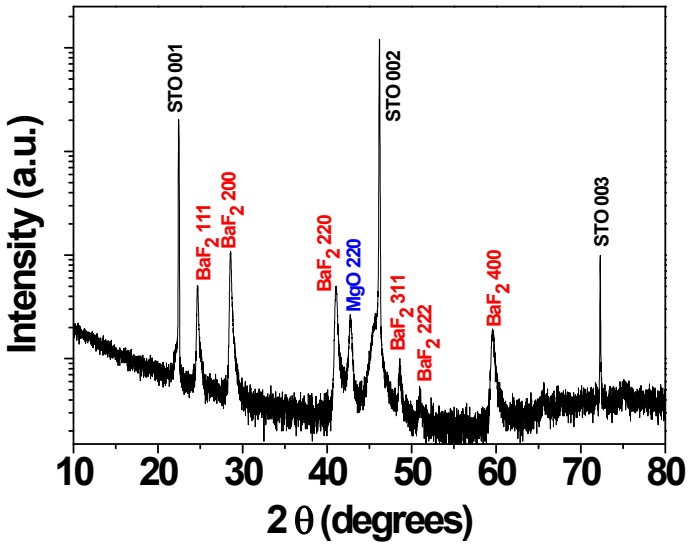

Fig. S4. XRD pattern of the BMF film grown with PLI-MOCVD on STO (100) substrate at 700°C and P_{O_2} of 7.1 Torr.

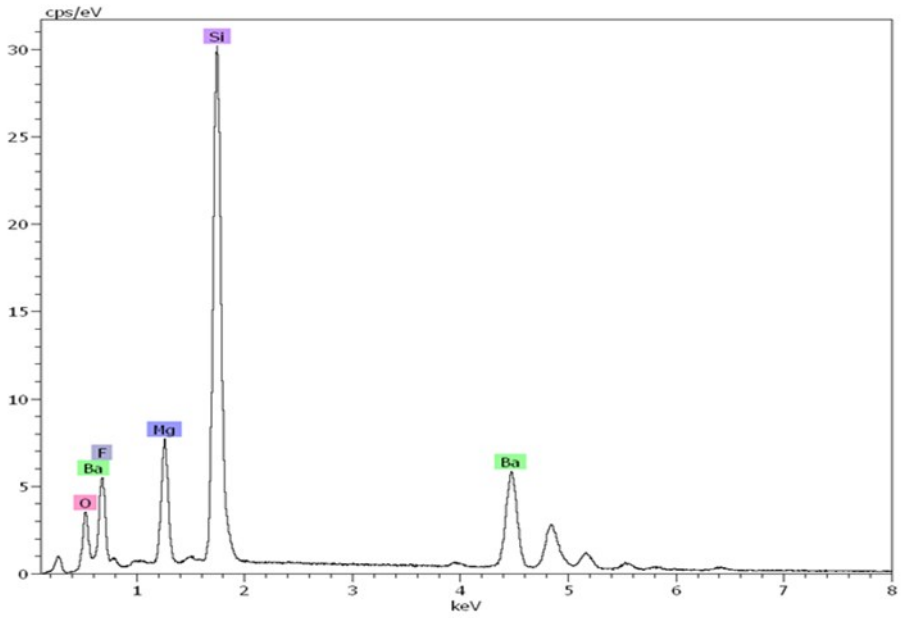

Fig. S5a. EDX spectrum of BMF film deposited on Si(100) with PLI-MOCVD at 700 °C and P_{O2} of 7.1 Torr.

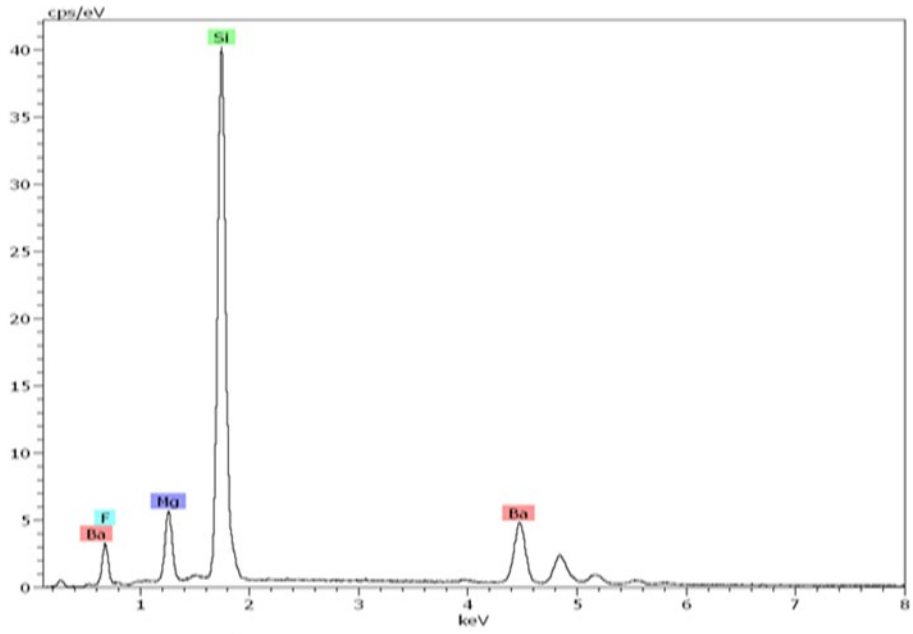

Fig. S5b . EDX spectrum of BMF film deposited on Si(100) with PLI-MOCVD at 675 °C and P_{O2} of 3 Torr.

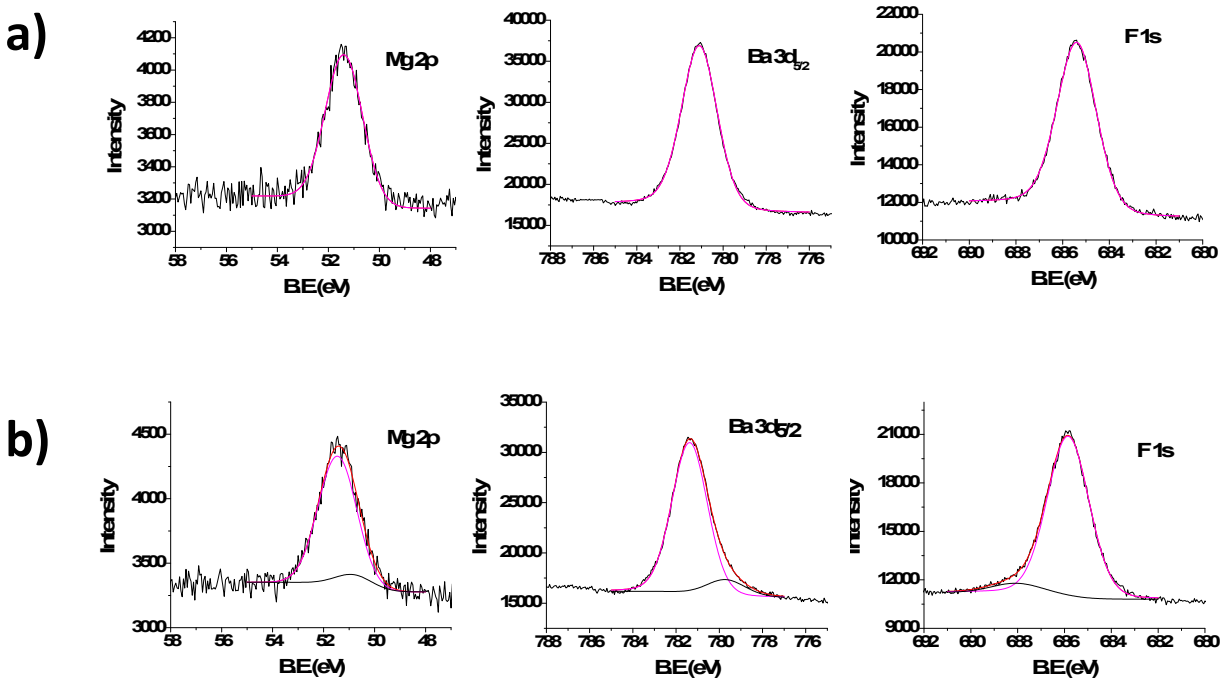

Fig. S6. XPS Ba $3d_{5/2}$, Mg 2p, F 1s spectral regions of a BMF film a) and BMF/BaF_2/MgO film b) deposited on STO (100) substrate.