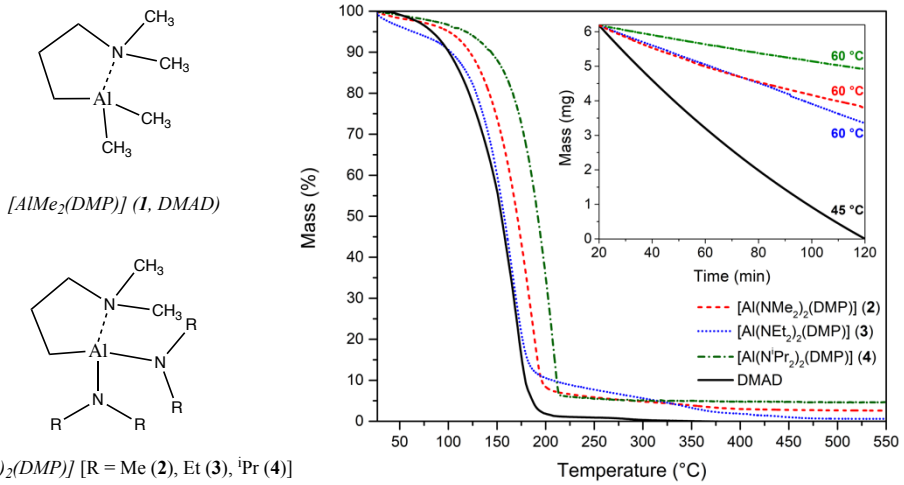

Figure 1. Molecular structures and thermogravimetric analysis of [$AlMe_2$(DMP)] (**1**, DMAD) [$Al(NMe_2)_2$(DMP)] (**2**), [$Al(NEt_2)_2$(DMP)] (**3**, BDEADA), [$Al(N^iPr_2)_2$(DMP)] (**4**) from room temperature to 550 °C. The inset shows the isothermal TGA at given temperatures over a period of 100 min of the respective compound.

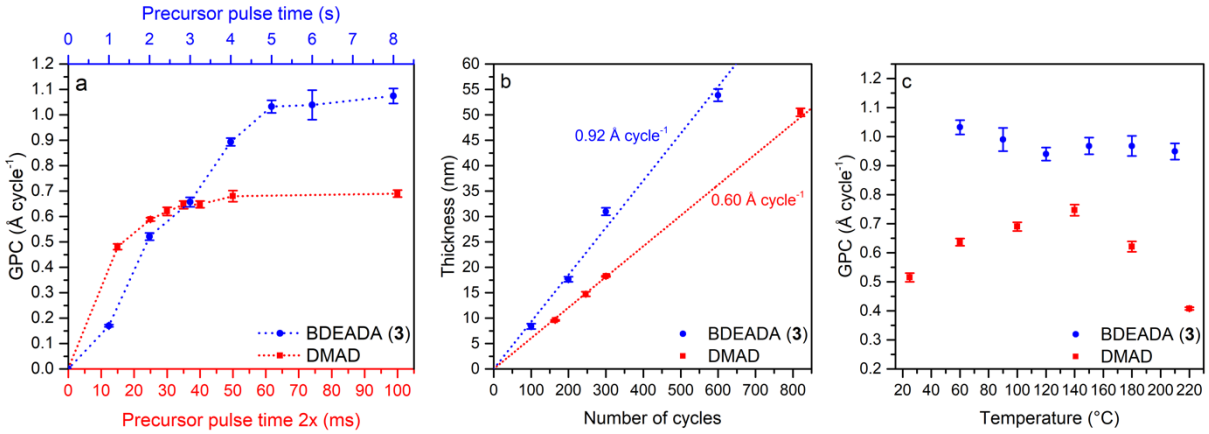

Figure 2. ALD characteristics of the PEALD processes employing DMAD (**1**) and BDEADA (**3**) as precursor: a) precursor saturation study at 60 °C; b) linear dependence of the thin film thickness vs. cycle number at 60 °C; c) temperature dependency of the growth rate.

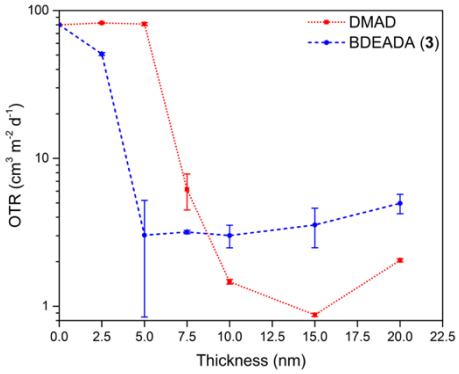

Figure 3. Oxygen transmission rates (OTR) of Al_2O_3 thin films of different thicknesses, grown on 23 µm thick PET foil via PEALD at 60 °C using DMAD (**1**) and BDEADA (**3**) as precursor.

1 L. Mai, M. Gebhard, T. de los Arcos, I. Giner, F. Mischker, M. Winter, H. Parala, P. Awakowicz, G. Grundmeier, A. Devi, *Chem. Eur. J.* **2017**, *45*, 10768