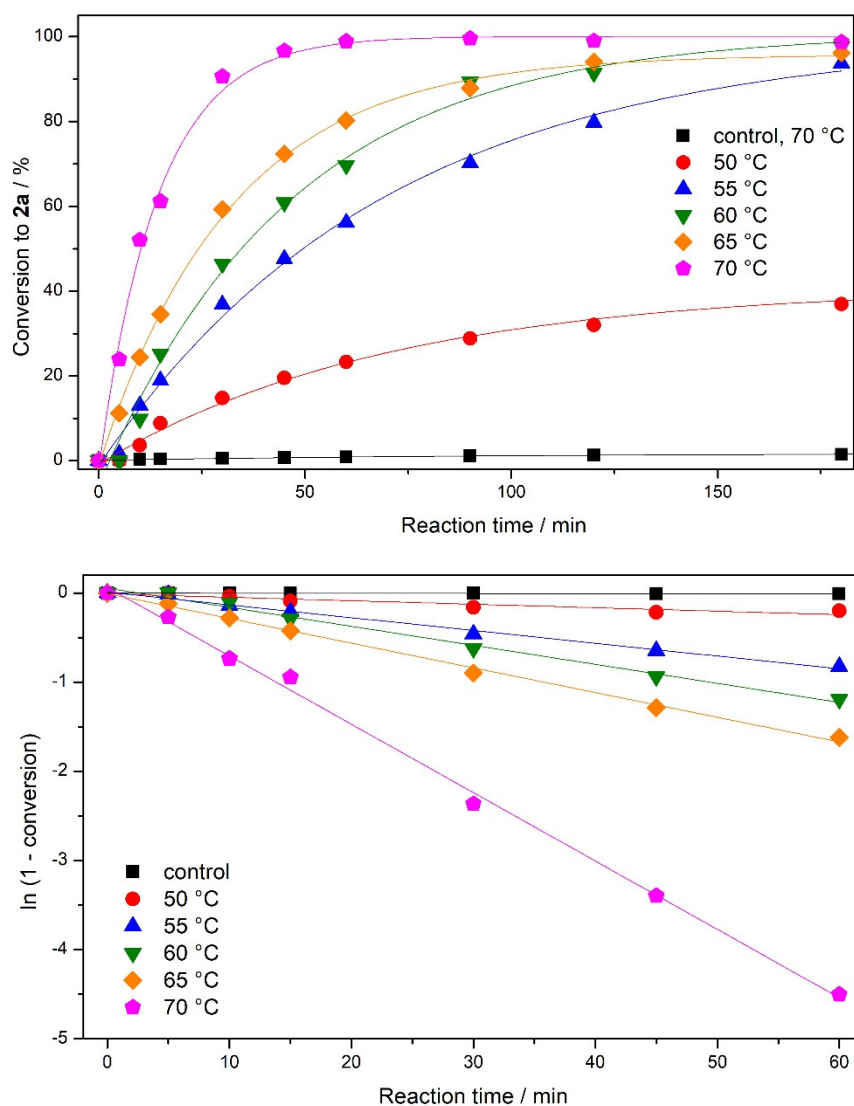


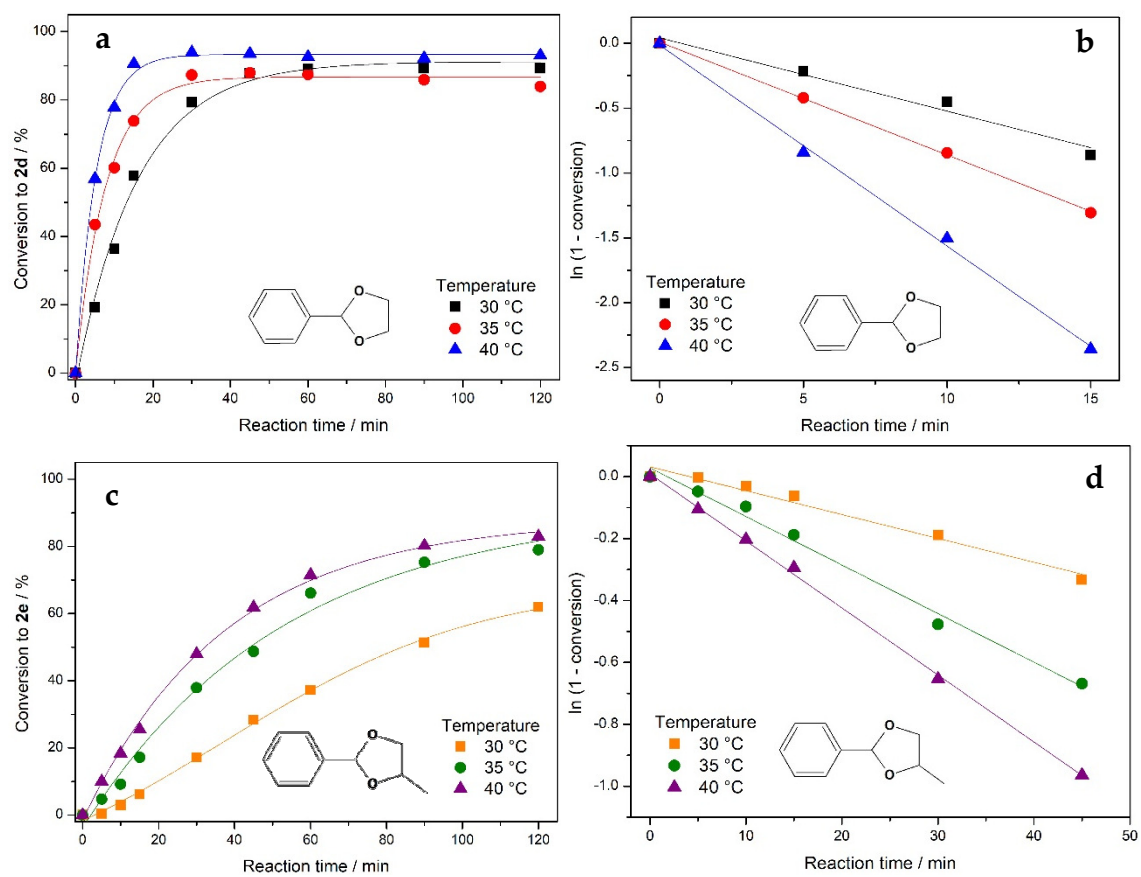
## Supplementary Materials (SM)

**Table S1:** TOF values in function of catalyst load in the benzaldehyde acetalization reaction catalyzed by Fe5F.

Catalyst load / % mol	0.5	1.0	2.0	4.0
TOF / h <sup>-1</sup>	162 ± 3.44	86.2 ± 0.982	90.6 ± 1.31	33.5 ± 1.06



**Figure S1.** Kinetic behavior for synthesis of **2a** in the presence of TEOF, catalyzed by Fe5F in different temperatures: (a) conversion values in function of time and (b) data linearization according to exponential first-order adjust.



**Figure S2.** Kinetic behavior for benzaldehyde's cyclic acetals synthesis catalyzed by Fe5F: (a) conversion to **2d** in function of time and (b) its linearized data; (c) conversion to **2e** in function of time and (d) its linearized data.