Supporting Information File

Green chemical incorporation of silicon into polyoxoanions of molybdenum: characterization, thermal kinetics study and their photocatalytic water splitting

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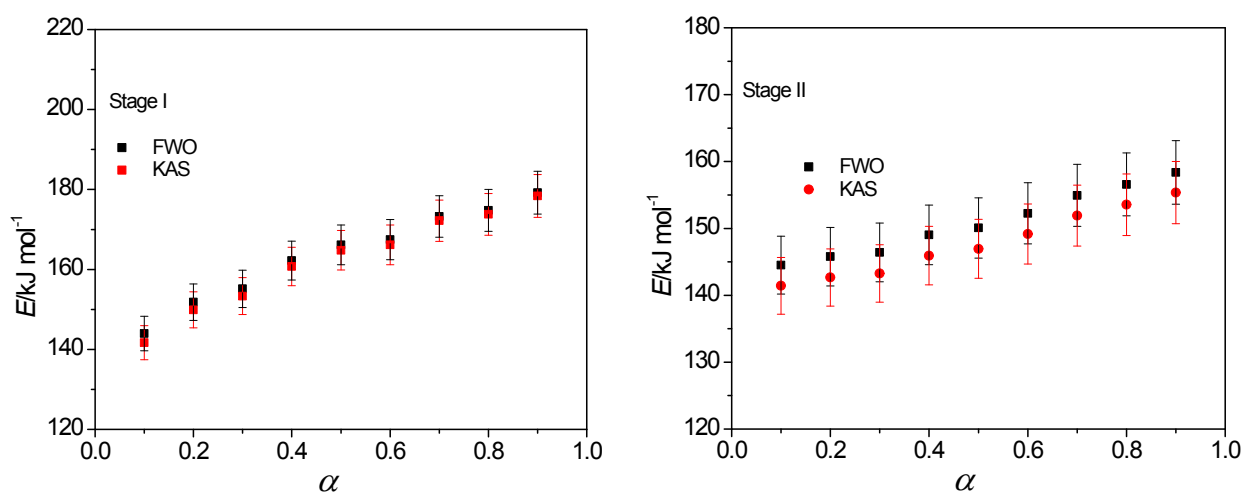
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The Figure discussed in the manuscript

Fig. S1 Dependence of activation energy (E) on degree of conversion (α) determined using FWO and KAS methods for stages I and II for the thermal decomposition of CSM nano particles.

The Table discussed in the manuscript

Table S2 Expressions for $g(\alpha)$ reaction model to describe the reaction kinetics in heterogeneous solid state systems.

Mechanism	Symbols	Formula of $g(\alpha)$
Mampel power law/n=2	P_2	$2\alpha^{1/2}$
Mampel power law/n=3	P_3	$1.5\alpha^{2/3}$
Mampel power law/n=4	P_4	$4\alpha^{3/4}$
Avrami-Erofeev eq.	A_2	$[-\ln(1-\alpha)]^{1/2}$
Avrami-Erofeev eq.	A_3	$[-\ln(1-\alpha)]^{1/3}$
Avrami-Erofeev eq.	A_4	$[-\ln(1-\alpha)]^{1/4}$
Avrami-Erofeev eq.	$A_{3/2}$	$[-\ln(1-\alpha)]^{2/3}$
Power law	R_1	α
Power law	R_2	$1-(1-\alpha)^{1/2}$
Power law	R_3	$1-(1-\alpha^{1/3}$
Parabolic law	D_1	α^2
Valensi eq.	D_2	$\alpha+(1-\alpha)[\ln(1-$
Jander eq.	D_3	$[1-(1-\alpha)^{1/3}]^2$
Anti-Ginstling-Brounstein eq.	D_4	$1-(2\alpha/3)-(1-$
Anti -Zhuravlev eq.	D_5	$[(1+\alpha)^{1/3}-1]^2$
First order /Mampel	F_1	$-\ln(1-\alpha)$
Second order	F_2	$(1-\alpha)^{-1}-1$
Third order	F_3	$(1-\alpha)^{-2}-1$
Three-quarters order	$F_{3/4}$	$1-(1-\alpha)^{1/4}$
One and a half order	$F_{3/2}$	$(1-\alpha)^{-1/2}-1$