

SUPPORTING INFORMATION

Kinetic study of waste tire pyrolysis using thermogravimetric analysis.

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Table S1. Temperatures at 95% weight loss for the two-particle sizes, applying ASTM E1641

Particle size (0.3 mm)					
T (°C)	T (K)	B (°C.min ⁻¹)	LOG B	1.T ⁻¹ (K)	1000.T ⁻¹ (K)
248	521	5.0±0.1	0.699	0.00192	1.92
273	546	10.0±0.1	1.000	0.00183	1.83
287	560	15.0±0.1	1.176	0.00179	1.79
Particle size (5.0 mm)					
T (°C)	T (K)	B (°C.min ⁻¹)	LOG B	1. T ⁻¹ (K)	1000.T ⁻¹ (K)
264	537	5.0±0.1	0.699	0.00186	1.86
298	571	10.0±0.1	1.000	0.00175	1.75
303	576	15.0±0.1	1.176	0.00174	1.74

Table S2. Estimated activation energy without integration

Size/Parameter	0.3 mm	5.0 mm
R (J.mol ⁻¹ .K ⁻¹)	8.314	8.314
b estimated (1.K ⁻¹)	0.457	0.457
EE _a (J.mol ⁻¹)	64621	61615

Table S3. Numerical integration constants according to ASTM E1641

E _a .(RT) ⁻¹	a	b (1.K ⁻¹)
12	7.433	0.505
13	7.933	0.500
14	8.427	0.494
15	8.918	0.491
16	9.406	0.488

Table S4. Determination of numerical integration constants

Particle size (0.3 mm)				
	5 °C.min ⁻¹	10 °C.min ⁻¹	20 °C.min ⁻¹	Average
b' (1.K ⁻¹)	0.4913	0.4933	0.4944	0.4930
a	8.8762	8.5407	8.3661	8.5943
Particle size (5.0 mm)				
	5 °C.min ⁻¹	10 °C.min ⁻¹	20 °C.min ⁻¹	Average
b' (1.K ⁻¹)	0.4946	0.5001	0.5008	0.4985
a	8.3272	7.9209	7.8653	8.0378