

Supplementary Information

Table S1. Parameters derived from the thermogravimetric analysis performed at 10 °C min⁻¹.

Sample	VM400 (wt% db)	VM400-450 (wt% db)	VM450-500 (wt% db)	VM500-750 (wt% db)	VM750-1000 (wt% db)	CY1000 (wt% db)	Tmax (°C)	DTGmax (% min ⁻¹)
TC	3.4	5.6	10.6	8.6	2.9	68.8	467	2.46
LDPE	0.0	12.2	84.9	0.2	0.0	2.7	477	28.03
PET	3.7	66.0	14.3	0.0	1.7	14.4	438	20.48
PBP	22.3	23.2	51.6	1.8	0.0	1.1	462	15.07
SP	73.2	3.6	2.0	4.0	6.1	11.1	322/363	5.30/10.37
TA	34.4	5.1	5.2	14.9	13.6	26.8	249/286	1.87/2.12
SU	69.0	4.0	2.5	4.6	3.9	16.1	234/282	8.57/6.12
OP	64.4	4.0	2.8	4.9	8.8	15.2	209/257/334	4.50/2.64/3.85

VM: volatile matter evolved up to a specific temperature or in a specific temperature interval.

CY: carbon yield at 1000 °C.

Tmax: temperature of maximum volatile matter evolution.

DTGmax: rate of maximum volatile matter evolution at Tmax in each stage.



Fig. S1. Residues of the TGA experiments carried out at 500 °C with SU and PBP.

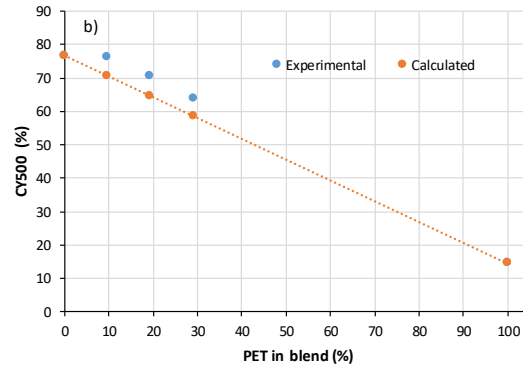
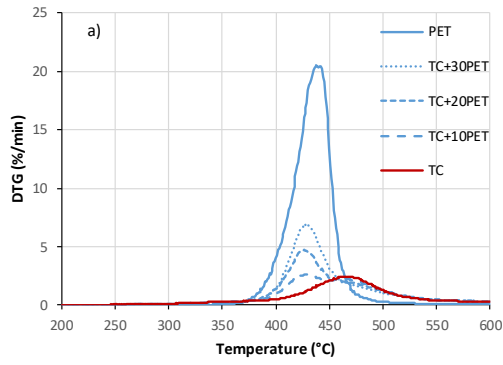


Fig S2. (a) DTG curves corresponding to the blends of coal TC and PET, (b) Relationship between the percentage of PET in the blend and the experimental and calculated char yield at 500 °C.

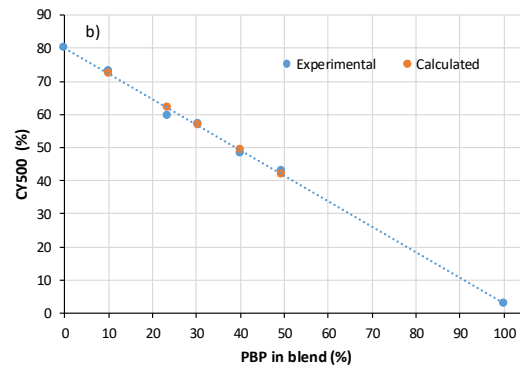
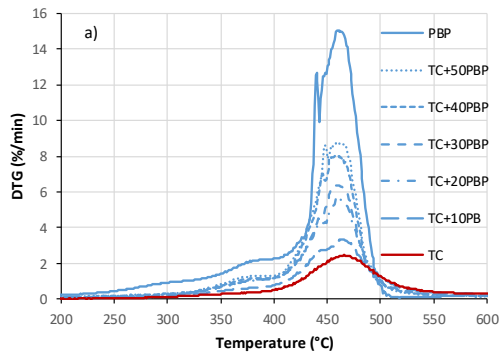


Fig S3. (a) DTG curves corresponding to the blends of coal TC and PBP, (b) Relationship between the percentage of PBP in the blend and the experimental and calculated char yield at 500 °C.

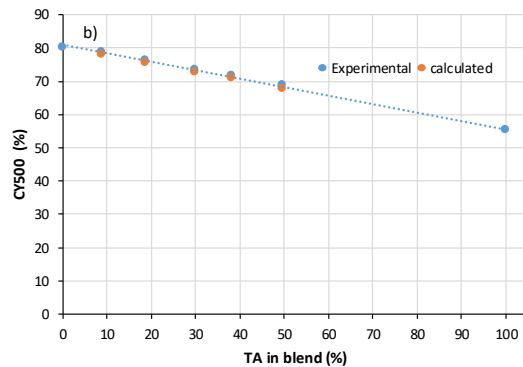
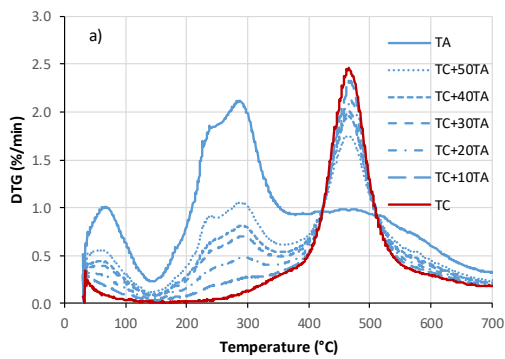


Fig S4. (a) DTG curves corresponding to the blends of coal TC and TA, (b) Relationship between the percentage of TA in the blend and the experimental and calculated char yield at 500 °C.

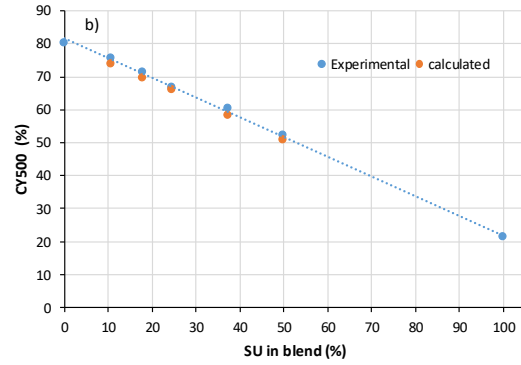
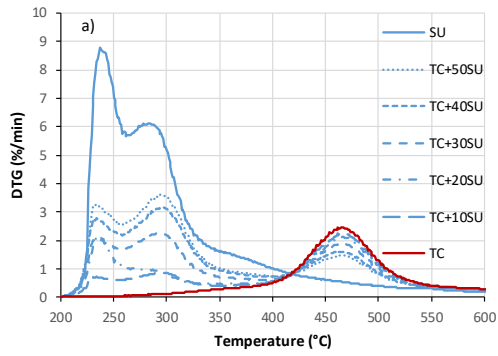


Fig S5. (a) DTG curves corresponding to the blends of coal TC and SU, (b) Relationship between the percentage of SU in the blend and the experimental and calculated char yield at 500 °C.

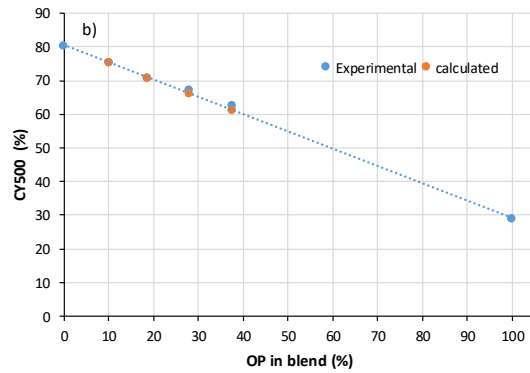
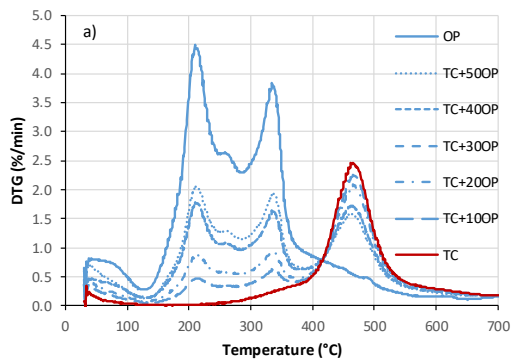


Fig S6. (a) DTG curves corresponding to the blends of coal TC and OP, (b) Relationship between the percentage of OP in the blend and the experimental and calculated char yield at 500 °C.

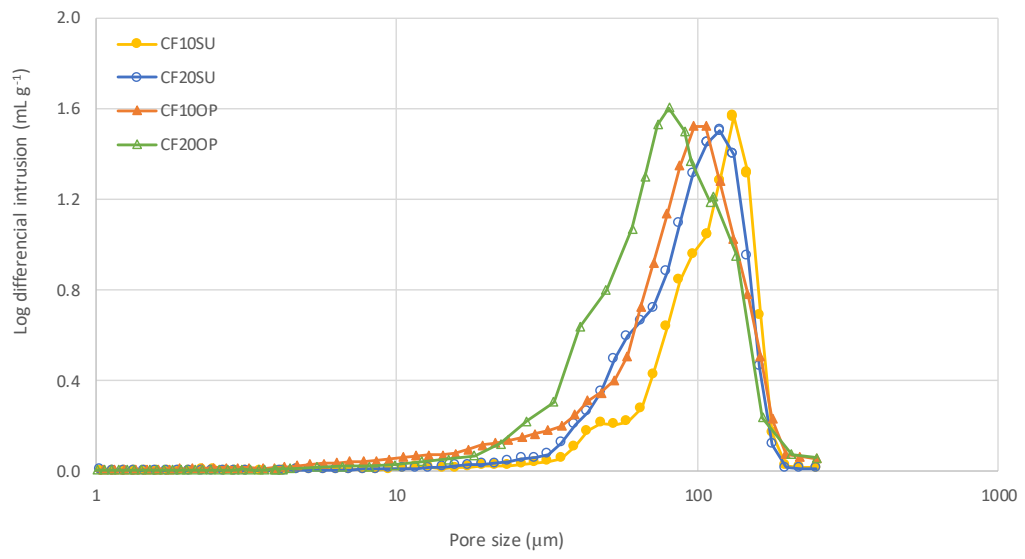


Fig. S7. Pore size distribution obtained by mercury porosimetry for foams: CF10SU, CF20SU, CF10OP and CF20OP.