

## SUPPORTING INFORMATION FOR

### **Phosphorus speciation analysis of fatty-acid-based feedstocks and fast pyrolysis biocrudes via gel permeation chromatography inductively coupled plasma high-resolution mass spectrometry**

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**Caption to tables:**

**Table S1.** Classification of the chromatogram peaks into four size fractions.

**Caption to Figures:**

**Figure S1.** GPC-UV-VIS calibration chromatogram of 10 polystyrene standards dissolved in THF. The mass in Da of the eluted compound is provided on the top of each peak.

**Figure S2.** GPC-UV-VIS calibration curve.

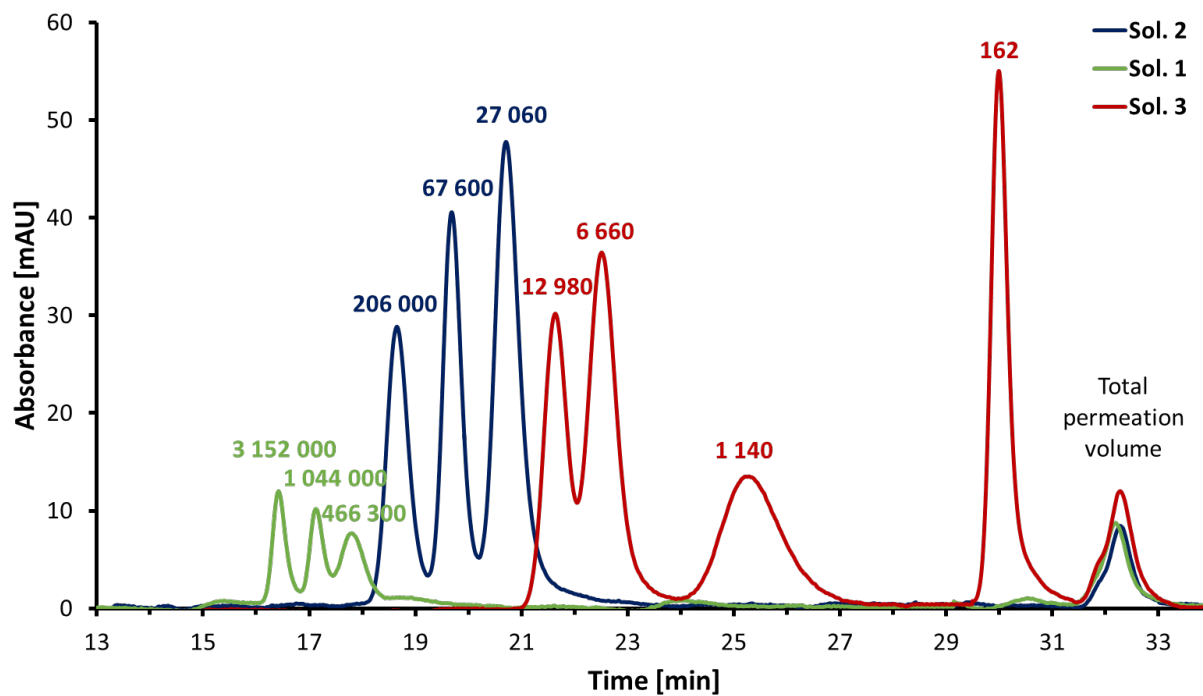
**Figure S3.** Bar plot representing the chromatographic distribution of the phosphorus species in both fresh and three months old biocrude xylene soluble extracts (XSE) divided into four size fractions.

**Figure S4.** Bar plot representing the chromatographic distribution of the phosphorus species in both fresh and three months old biocrude xylene insoluble extracts (XIE) divided into four size fractions.

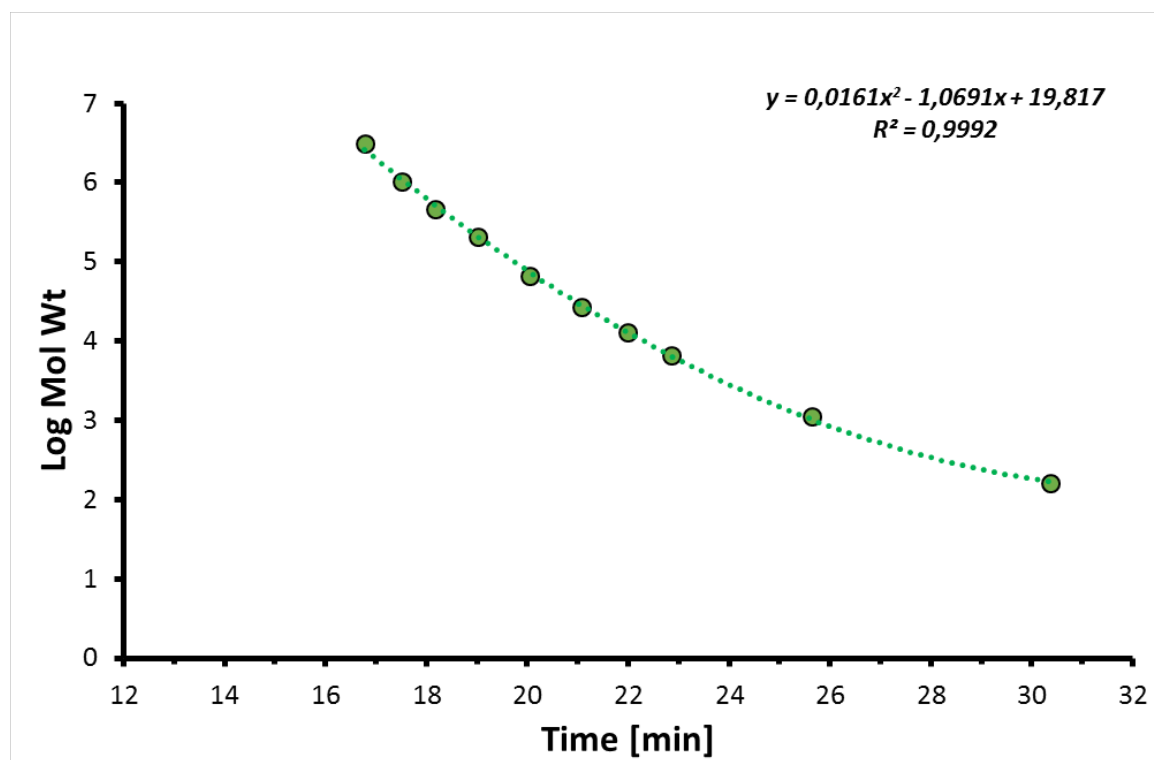
**Table S1.** Classification of the chromatogram peaks into four size fractions.

Fraction	$t_R$ [min]	Estimated molecular weight [Da]
F1	13 – 20	> 315 000 – 75 000
F2	20 – 25	75 000 – 1 400
F3	25 – 28	1 400 – 320
F4	> 28	< 320

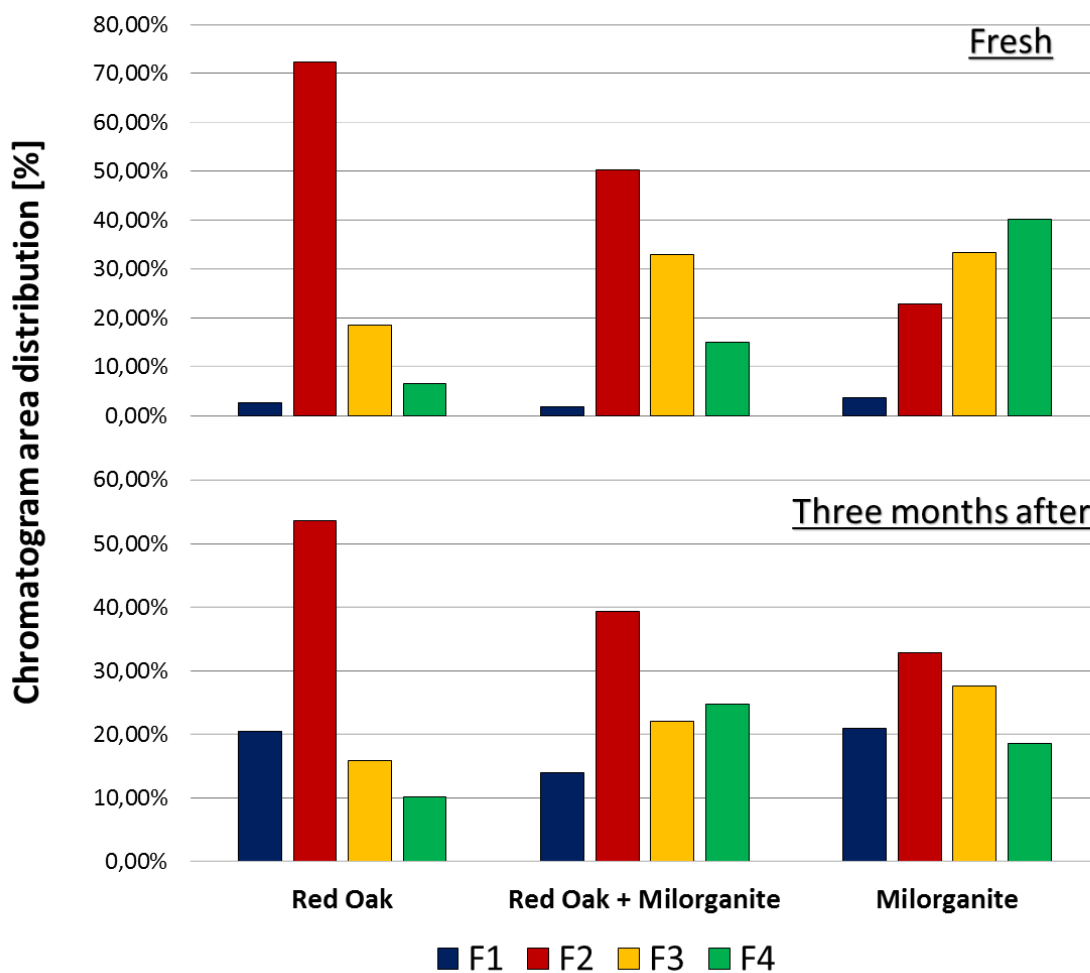
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**Figure S2.** GPC-UV-VIS calibration curve.



**Figure S3.** Bar plot representing the chromatographic distribution of the phosphorus species in both fresh and three months old biocrude xylene soluble extracts (XSE) divided into four size fractions.



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