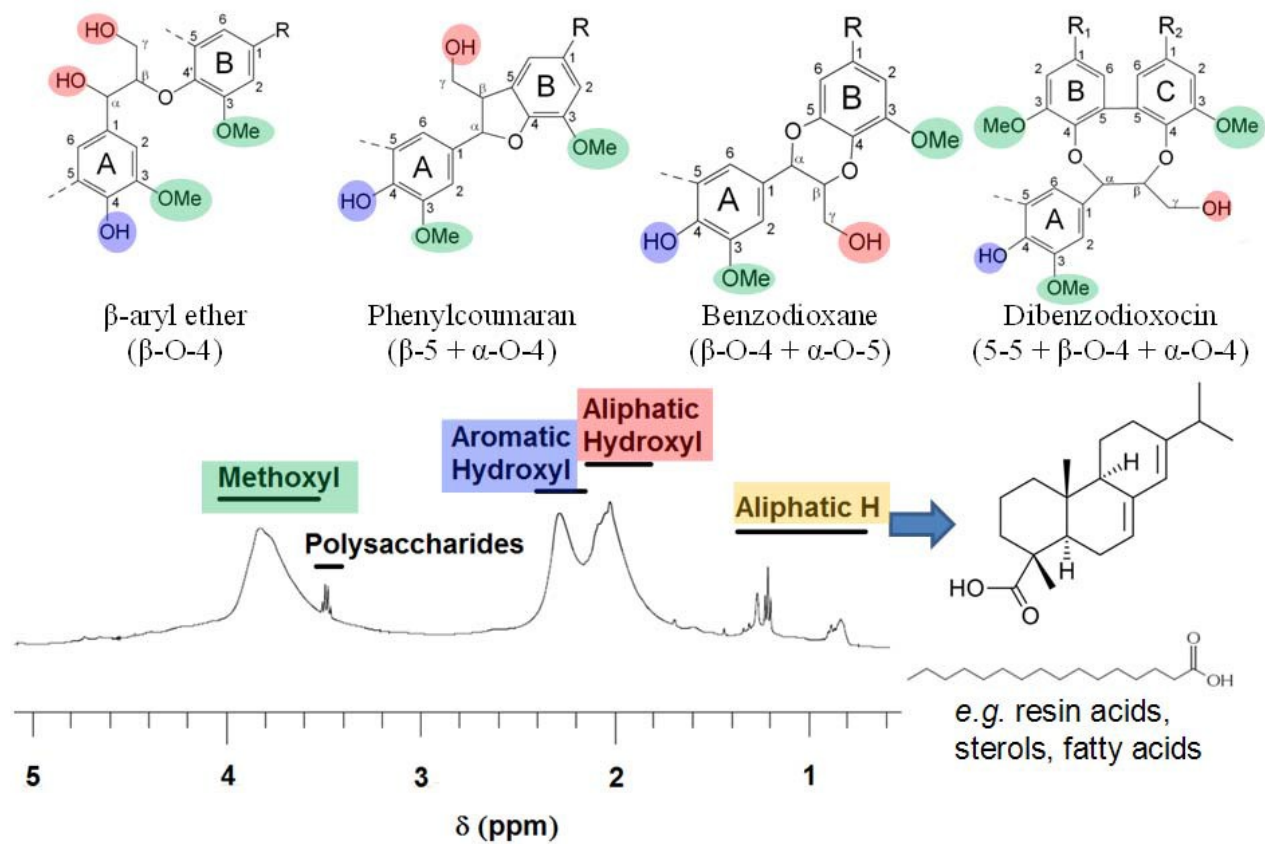
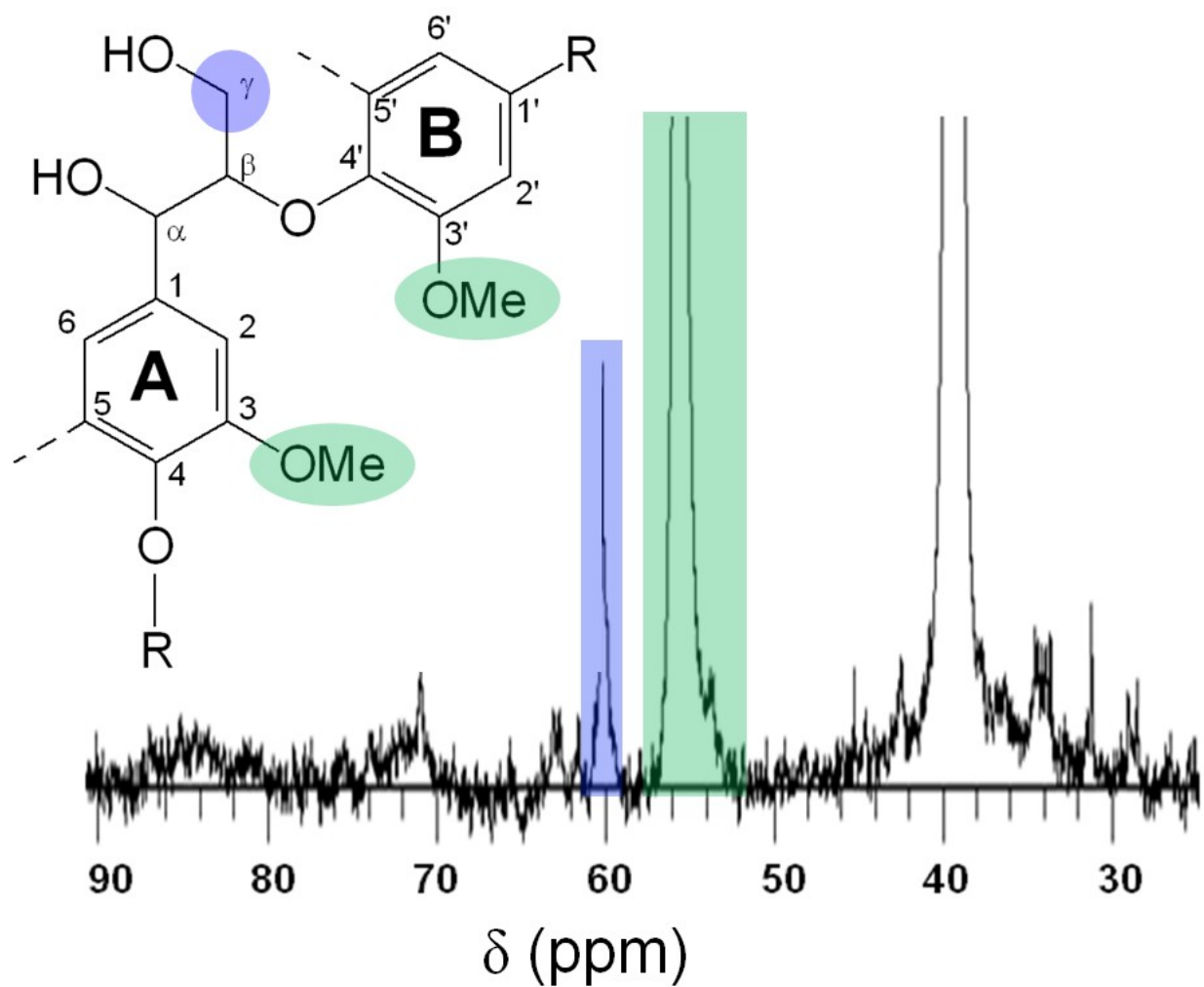


Classification	Compound	Elution time (min)	Primary Mass Peak (m/z)
S+C ₃	Methoxyeugenol	25.9	194
S+C ₂	4-ethyl-2,6-dimethoxyphenol	23.1	137
S+C ₂	3,4-Dimethoxystyrene	20.9	164
S+C ₁	2,3-Dimethoxytoluene	17.6	152
S+C ₁	2,5-dimethoxy-toluene	18.4	137
G+C ₃	Dihydromethyleugenol	23.6	151
G+C ₃	Propiovanillone	24.7	151
G+C ₃	Guaicylacetone	24.2	137
G+C ₃	<i>p</i> -Propylguaiacol	20.1	137
G+C ₃	Isoeugenol	21.0	164
G+C ₂	Acetovanillone	23.5	151
G+C ₂	4-Vinylguaiacol	19.7	135
G+C ₂	4-Ethylguaiacol	18.9	137
G+C ₁	2-methoxy-4-methyl-phenol	17.3	138
G+C ₁	Vanillin	22.3	151
G+C ₁	2-Methoxy-6-methylphenol	16.8	123
G+C ₁	3-methoxy-5-methyl-phenol	17.3	123
Guaiacol	Guaiacol	15.5	124
Ph+C ₂	3-ethyl-phenol	18.1	107
Ph+C ₂	<i>p</i> -Xylenol	14.7	122
Ph+C ₁	<i>p</i> -Cresol	16.6	107
Ph+C ₁	<i>o</i> -Cresol	15.9	108
Phenol	Phenol	15.0	94

Supplemental Table S1: Identification and classification of pyrolytic products obtained via Pyrolysis GC/MS.



Supplemental Figure S1: Representative ^1H NMR spectra of acetylated lignin fractions showing identification of typical structures in lignins as well as aliphatic protons that might be found in softwood extractives.



Supplemental Figure S2: Representative quantitative ¹³C NMR spectra of a typical lignin fraction identifying the C_γ in a β -O-4 bond and a methoxyl group used to determine the lignin β -O-4 content (Fig. 3B).