

Supporting Information for

**Cellulose Functionalization Based on *N*-Heterocyclic
based Leaving Group Chemistry**

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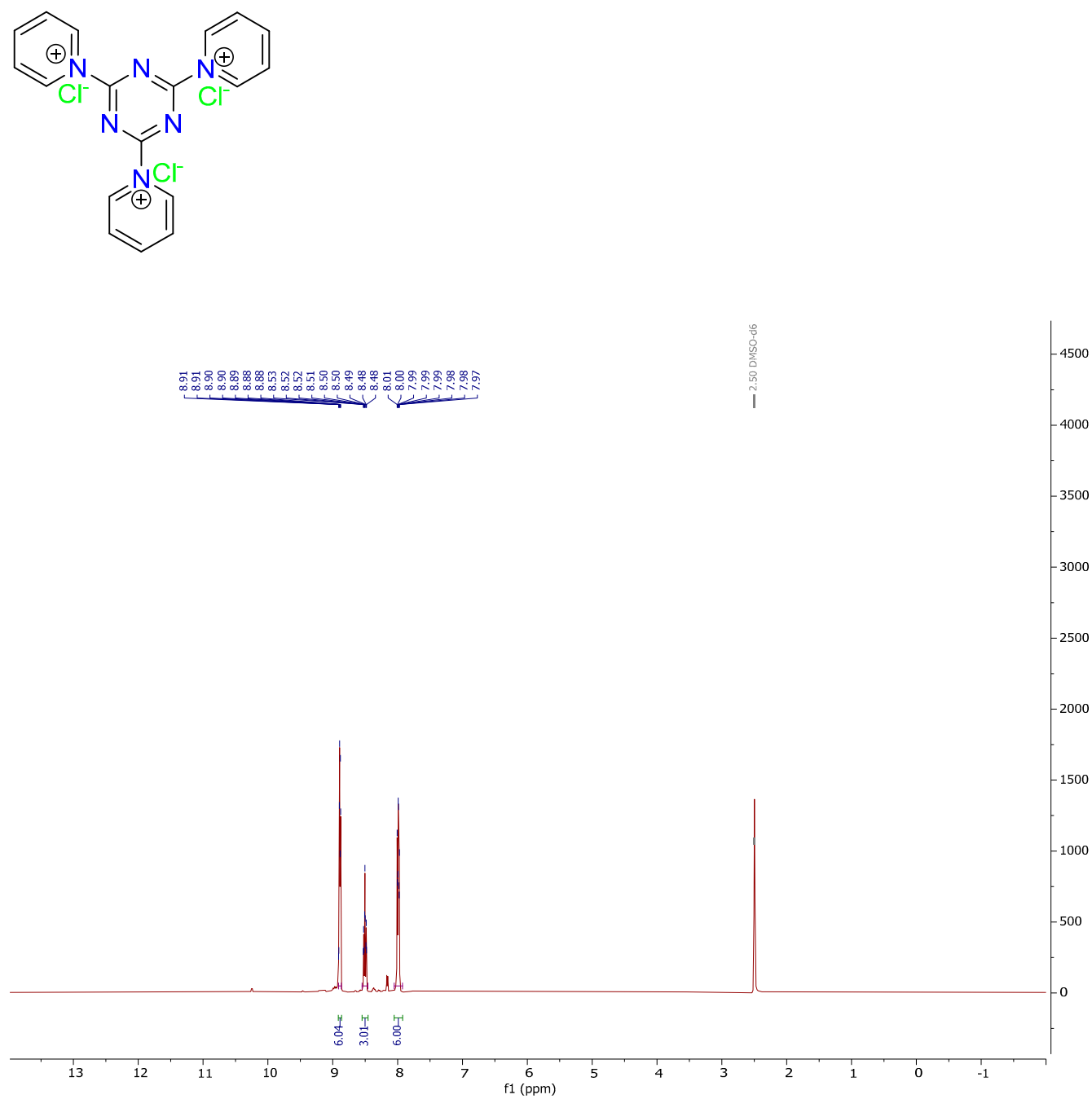
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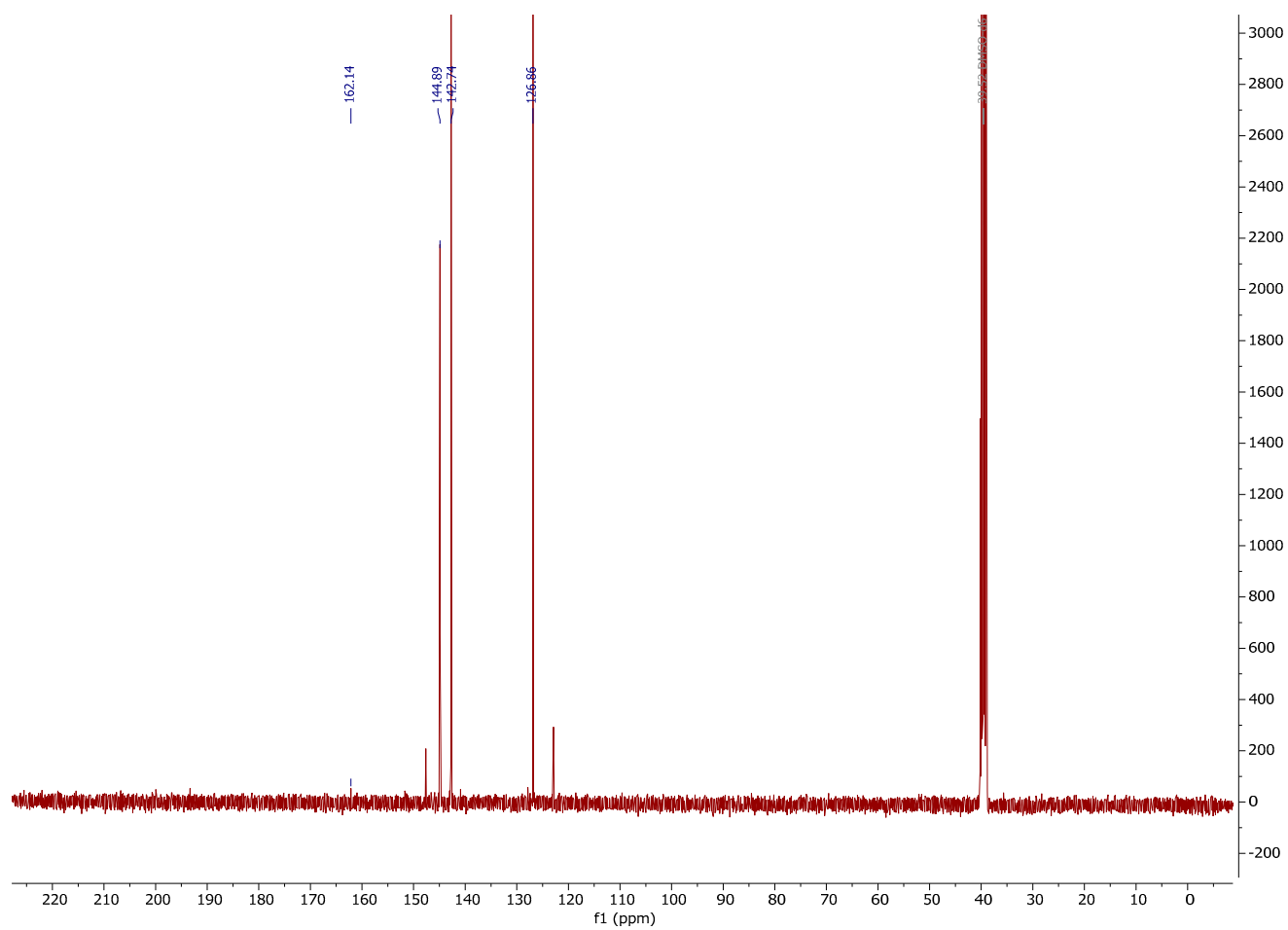
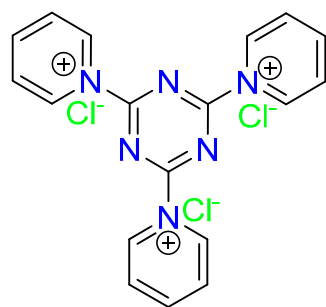
Contents

<i>Figures</i>	<i>NMR assignments of representative compounds</i>
<i>S1</i>	¹ H-NMR of <i>1,1',1''-(1,3,5-triazine-2,4,6-triyl)tris(pyridin-1-ium)</i> (PrAct-1)
<i>S2</i>	¹³ C- NMR of <i>1,1',1''-(1,3,5-triazine-2,4,6-triyl)tris(pyridin-1-ium)</i> (PrAct-1)
<i>S3</i>	¹ H-NMR of <i>3,3',3''-(1,3,5-triazine-2,4,6-triyl)tris(1-methyl-1H-imidazol-3-ium)</i> (PrAct-2)
<i>S4</i>	¹³ C-NMR of <i>3,3',3''-(1,3,5-triazine-2,4,6-triyl)tris(1-methyl-1H-imidazol-3-ium)</i> (PrAct-2)
<i>S5</i>	¹ H-NMR of <i>1,1',1''-(1,3,5-triazine-2,4,6-triyl)tris(3-carboxypyridin-1-ium)</i> (PrAct-3)
<i>S6</i>	¹³ C-NMR of <i>1,1',1''-(1,3,5-triazine-2,4,6-triyl)tris(3-carboxypyridin-1-ium)</i> (PrAct-3)
<i>S7</i>	¹ H-NMR of <i>2-pyridinium methyl phenyl ketone</i> (Act-1)
<i>S8</i>	¹ H-NMR of <i>2-pyridinium methyl decanyl ketone</i> (Act-2)
<i>S9</i>	¹ H-NMR of <i>3-carboxy-1-dodecylpyridin-1-ium</i> (Act-3)
<i>S10</i>	¹ H-NMR of <i>2-nicotinyl methyl phenyl ketone</i> (Act-4)
	<i>Reflectance Spectroscopy: Results for anthraquinone based colorants</i>
<i>S11</i>	Reflectance spectroscopical data for colorant-1
<i>S12</i>	Reflectance spectroscopical data for colorant-2
	<i>FTIR Spectroscopy: Chemical characterization of cellulose functionalisation</i>
<i>S13</i>	Cysteine-treated preactivated cotton fabrics
<i>S14</i>	Zein-treated preactivated cotton fabrics
	<i>Time-Gated Raman spectroscopy: Chemical characterization of cellulose functionalisation</i>
<i>S15</i>	1-Nonanol-treated preactivated cotton fabrics
<i>S16</i>	1,8-Octadiol-treated preactivated cotton fabrics
<i>S17</i>	Cysteine-treated preactivated cotton fabrics
<i>S18</i>	Benzylamine-treated preactivated cotton fabrics
<i>S19</i>	Phenol-treated preactivated cotton fabrics
<i>S20</i>	Act-1-treated cotton fabrics
<i>S21</i>	Act-2-treated cotton fabrics

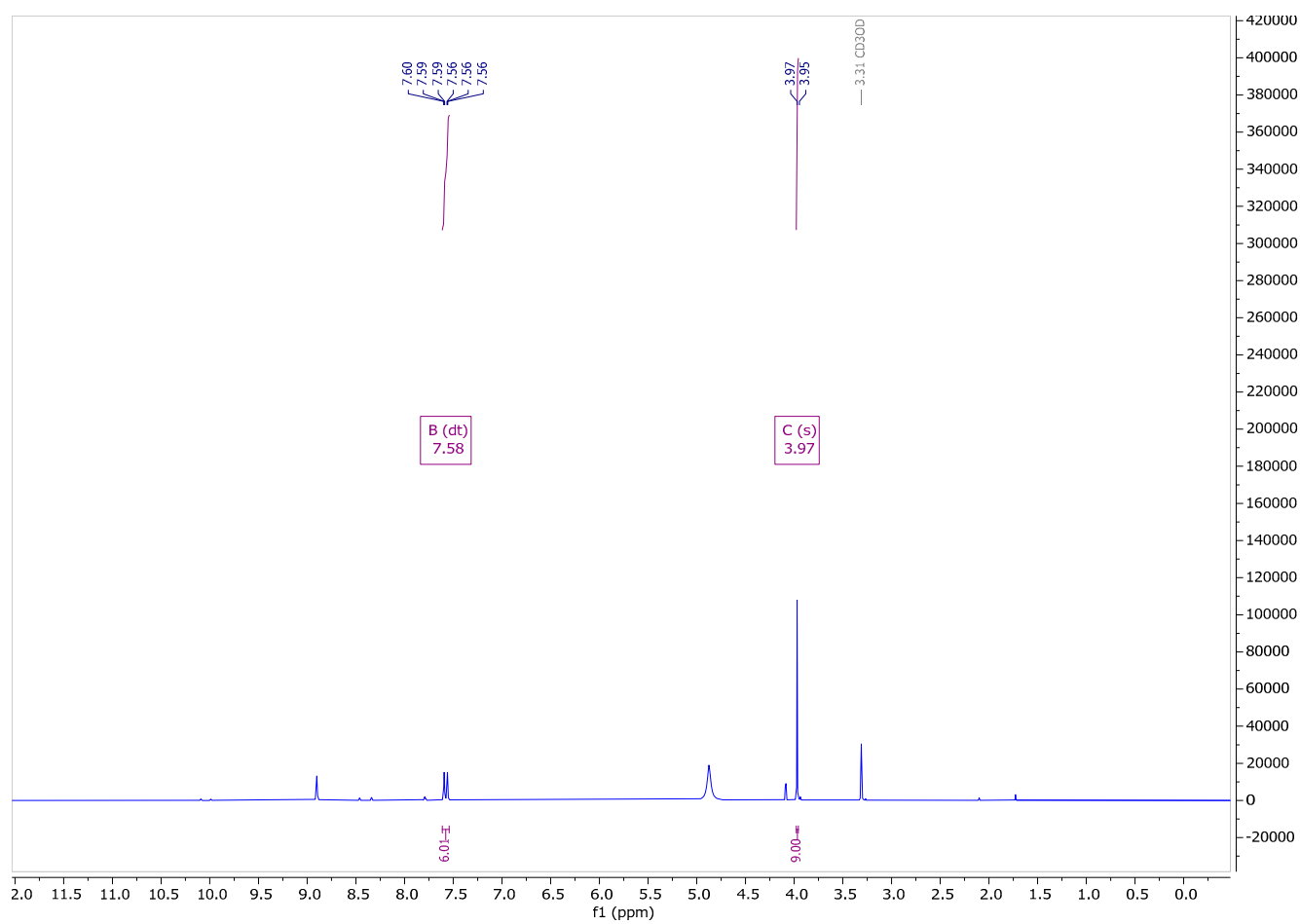
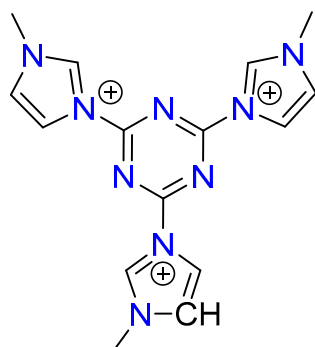
S1. ^1H -NMR of *1,1',1''*-(1,3,5-triazine-2,4,6-triyl)tris(pyridin-1-ium) (PrAct-1)



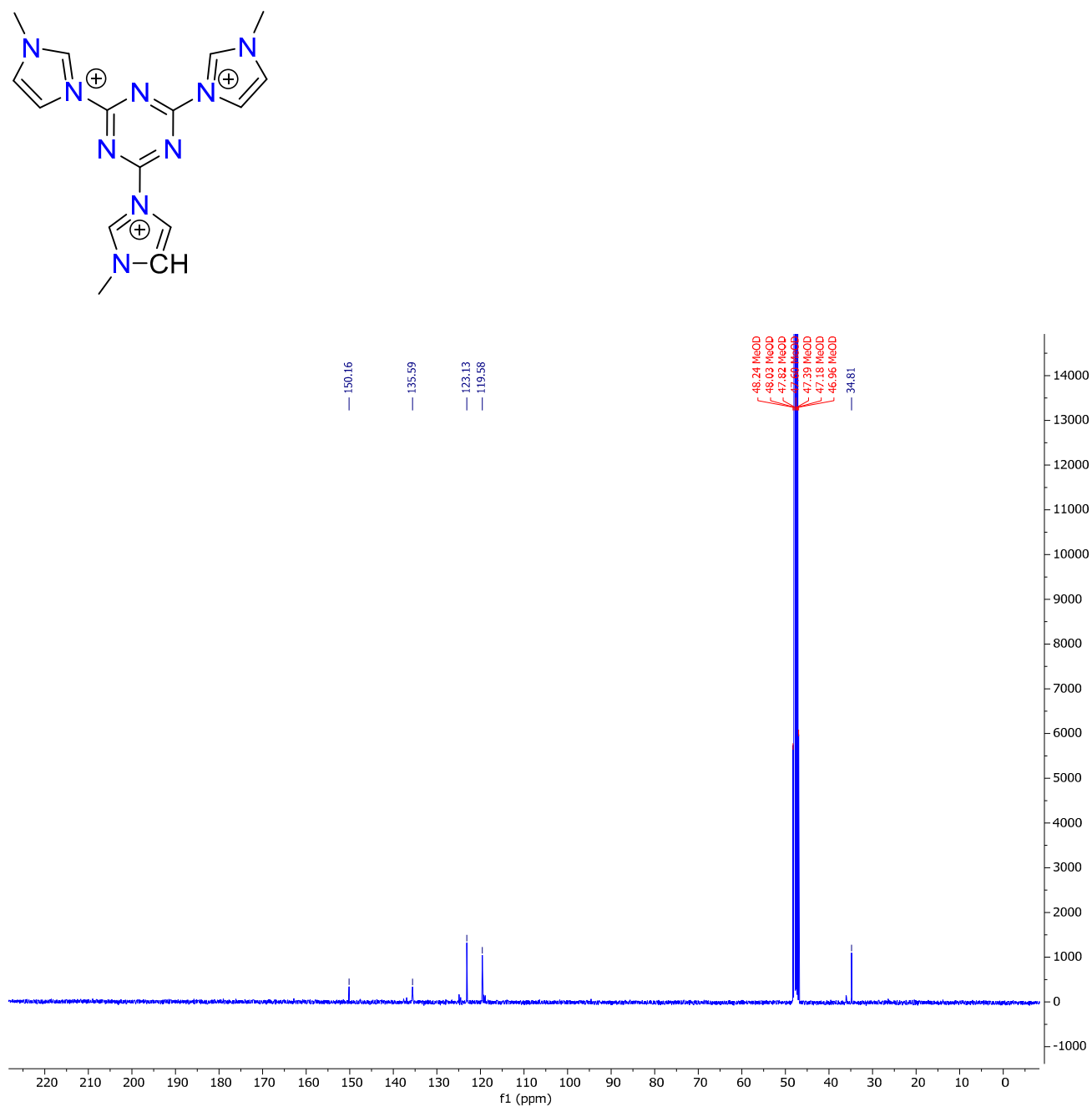
S2 · ^{13}C -NMR of *1,1',1''*-(1,3,5-triazine-2,4,6-triyl)tris(pyridin-1-ium) (PrAct-1)



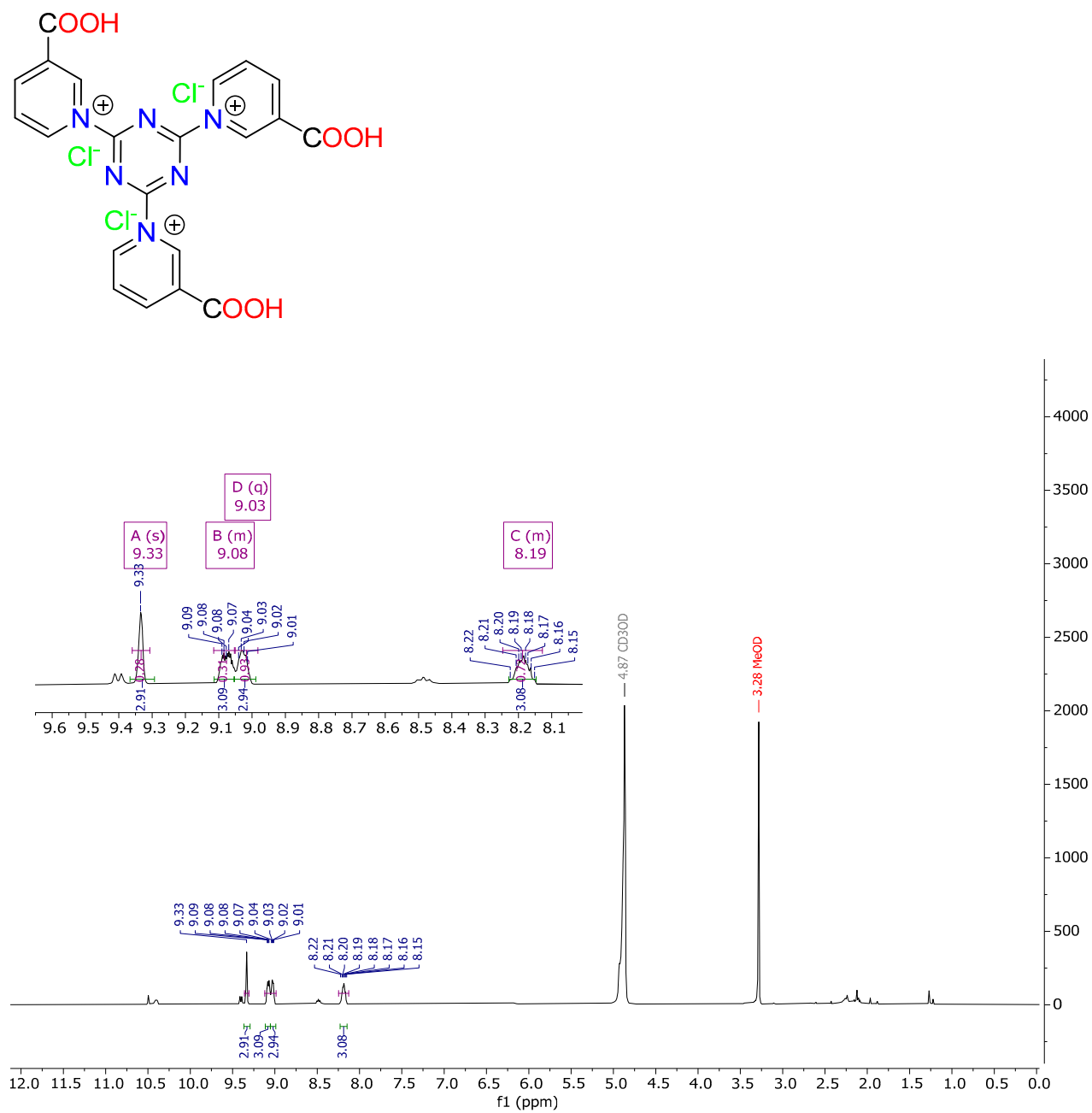
S3. ^1H -NMR of 3,3',3''-(1,3,5-triazine-2,4,6-triyl)tris(1-methyl-1H-imidazol-3-ium) (PrAct-2)



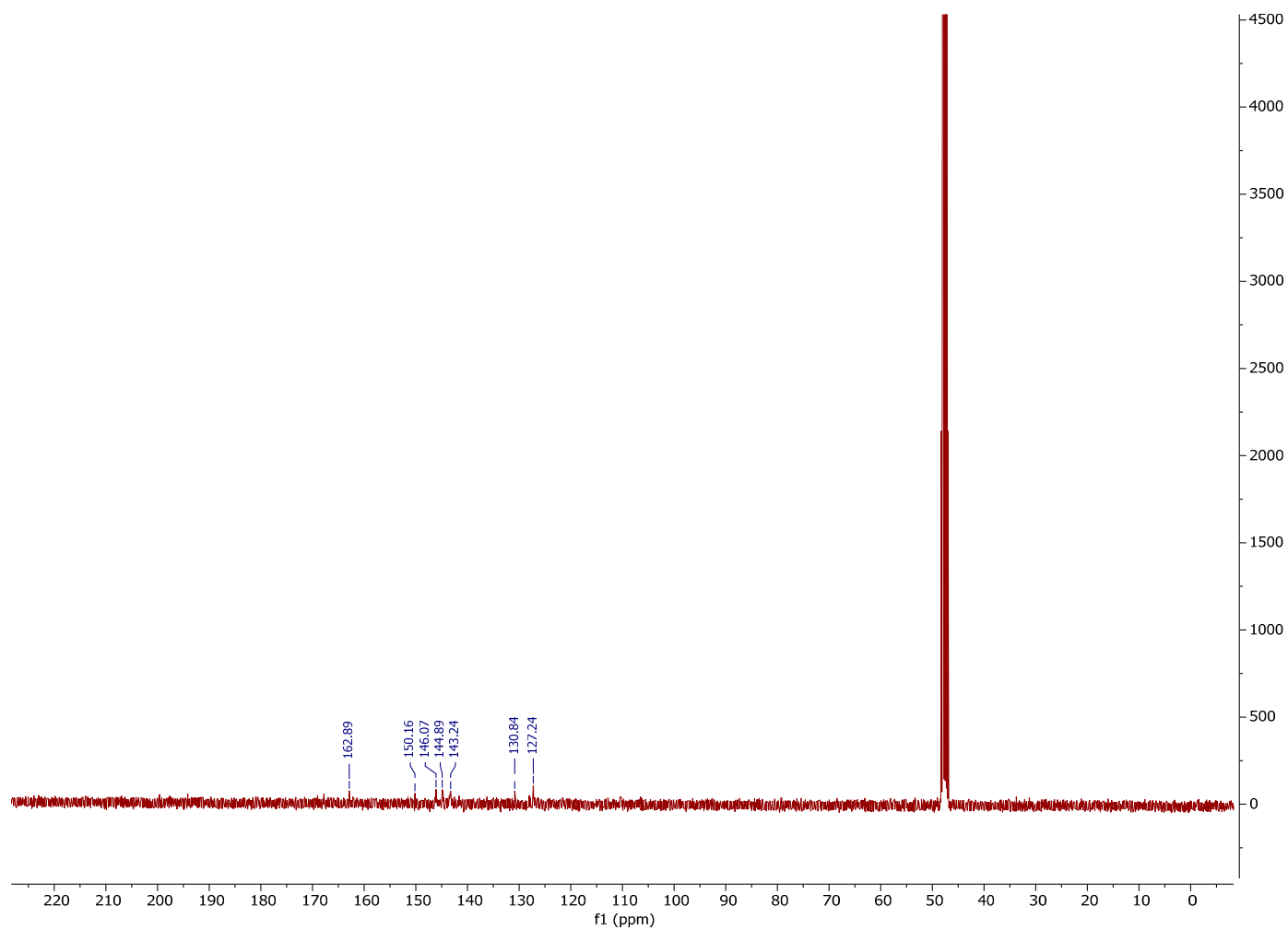
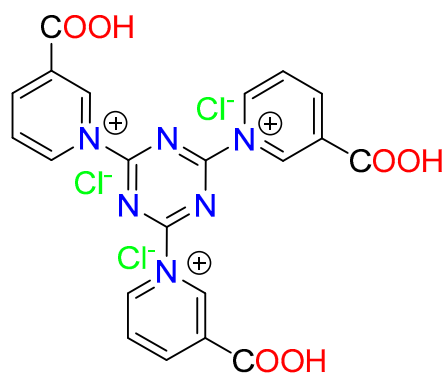
S4. ^1H -NMR of 3,3',3''-(1,3,5-triazine-2,4,6-triyl)tris(1-methyl-1H-imidazol-3-ium) (PrAct-2)



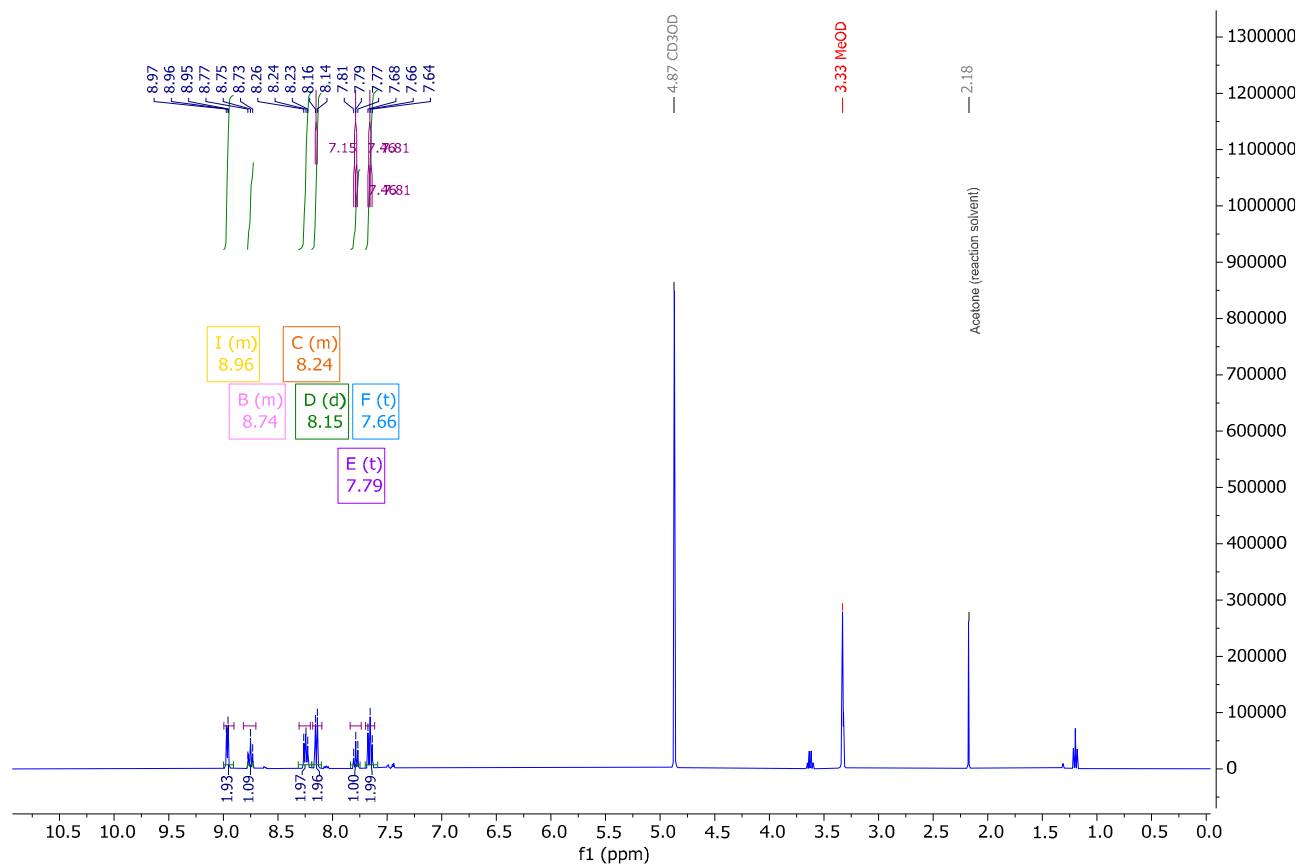
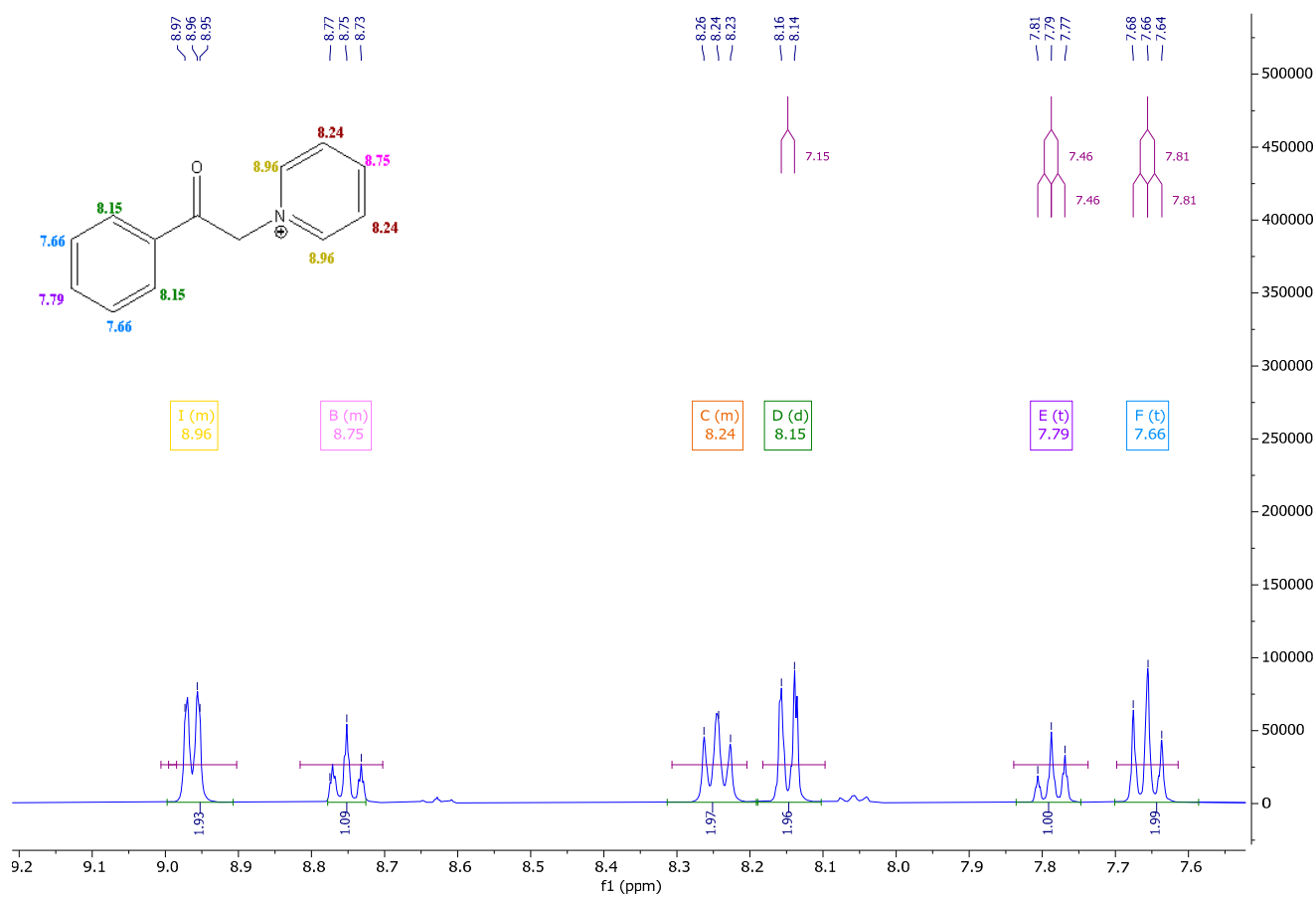
S5. ^1H -NMR of 1,1',1''-(1,3,5-triazine-2,4,6-triyl)tris(3-carboxypyridin-1-ium) (PrAct-3)



S6. ^{13}C -NMR of *1,1',1''*-(1,3,5-triazine-2,4,6-triyl)tris(3-carboxypyridin-1-ium) (PrAct-3)

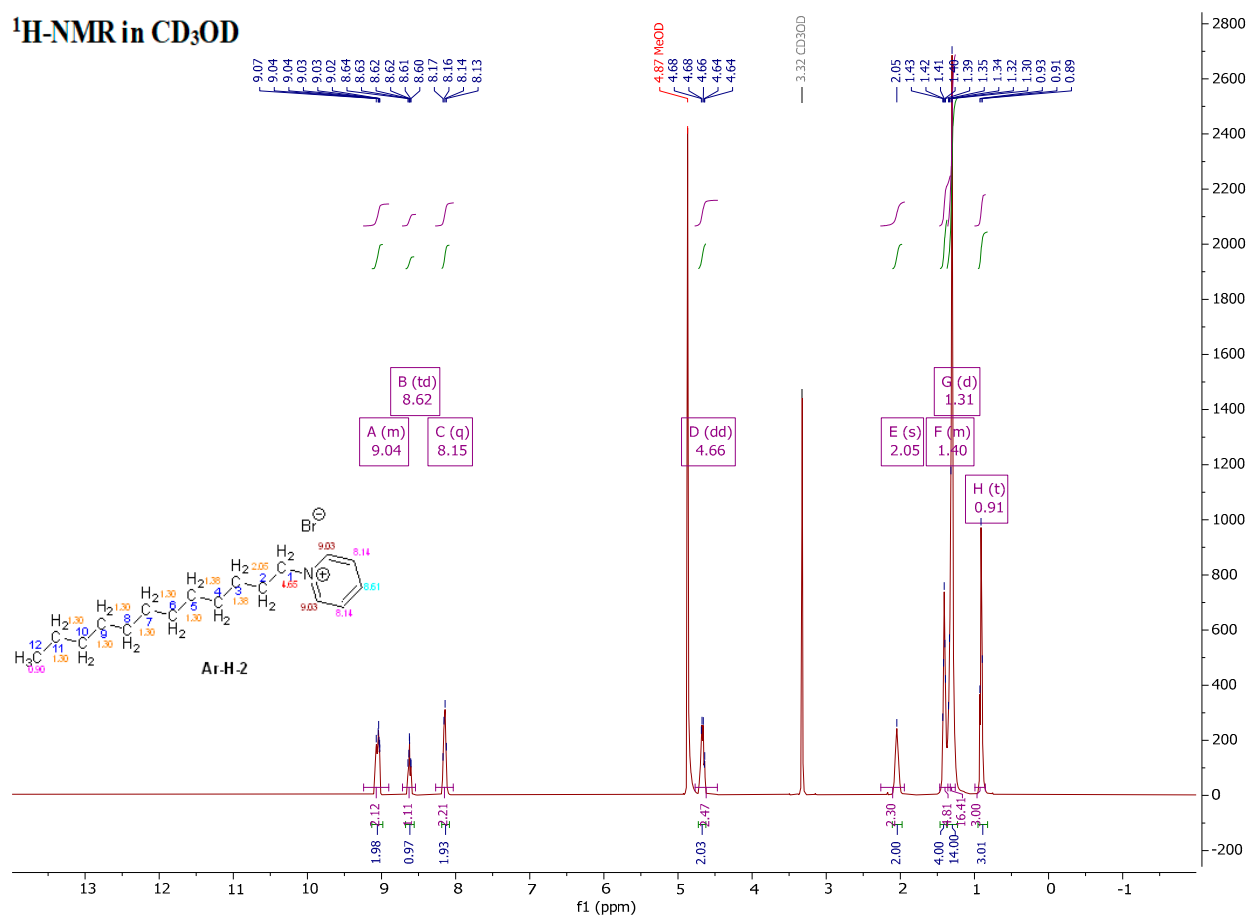


S7. ^1H -NMR of 2-pyridinium methyl phenyl ketone (Act-1)

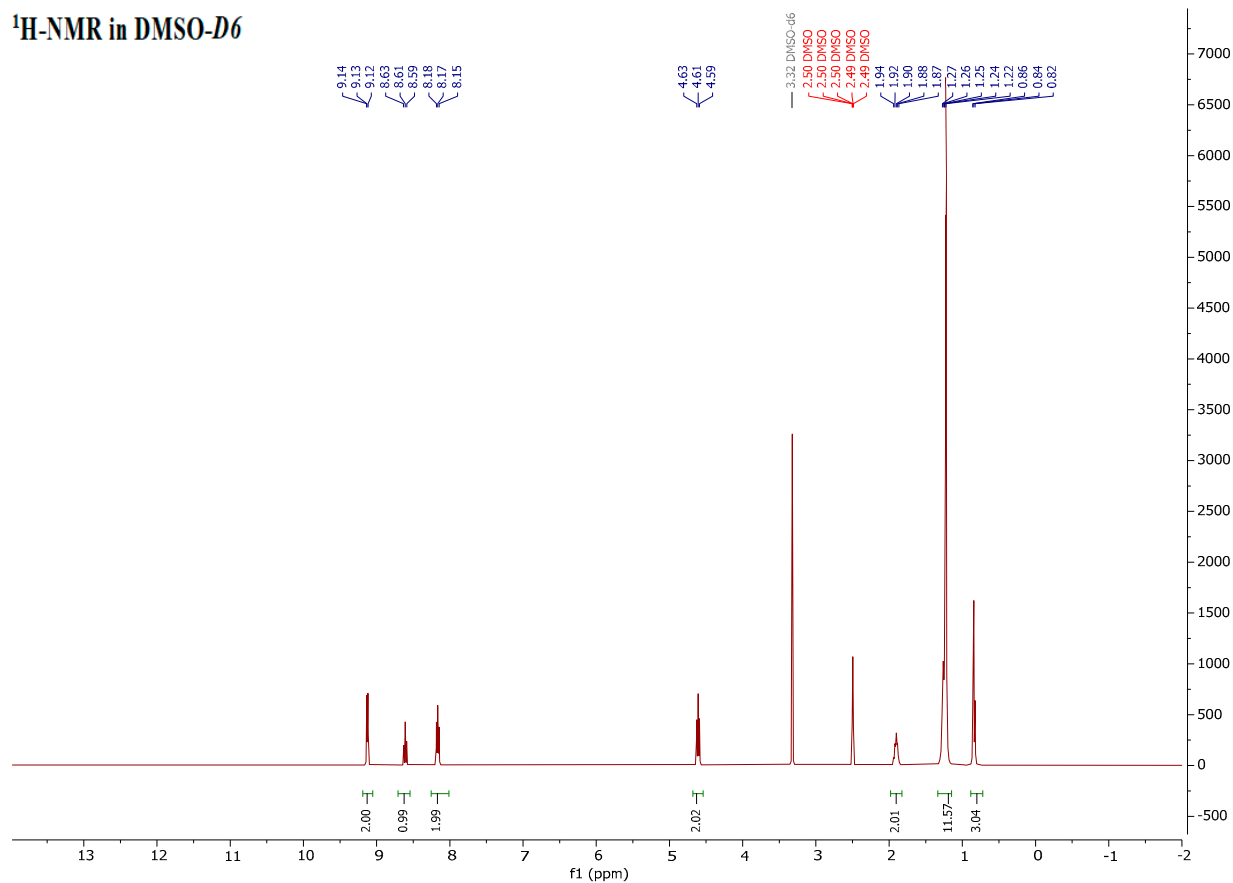


S8. ^1H -NMR of 2-pyridinium methyl decanyl ketone (Act-2)

^1H -NMR in CD_3OD

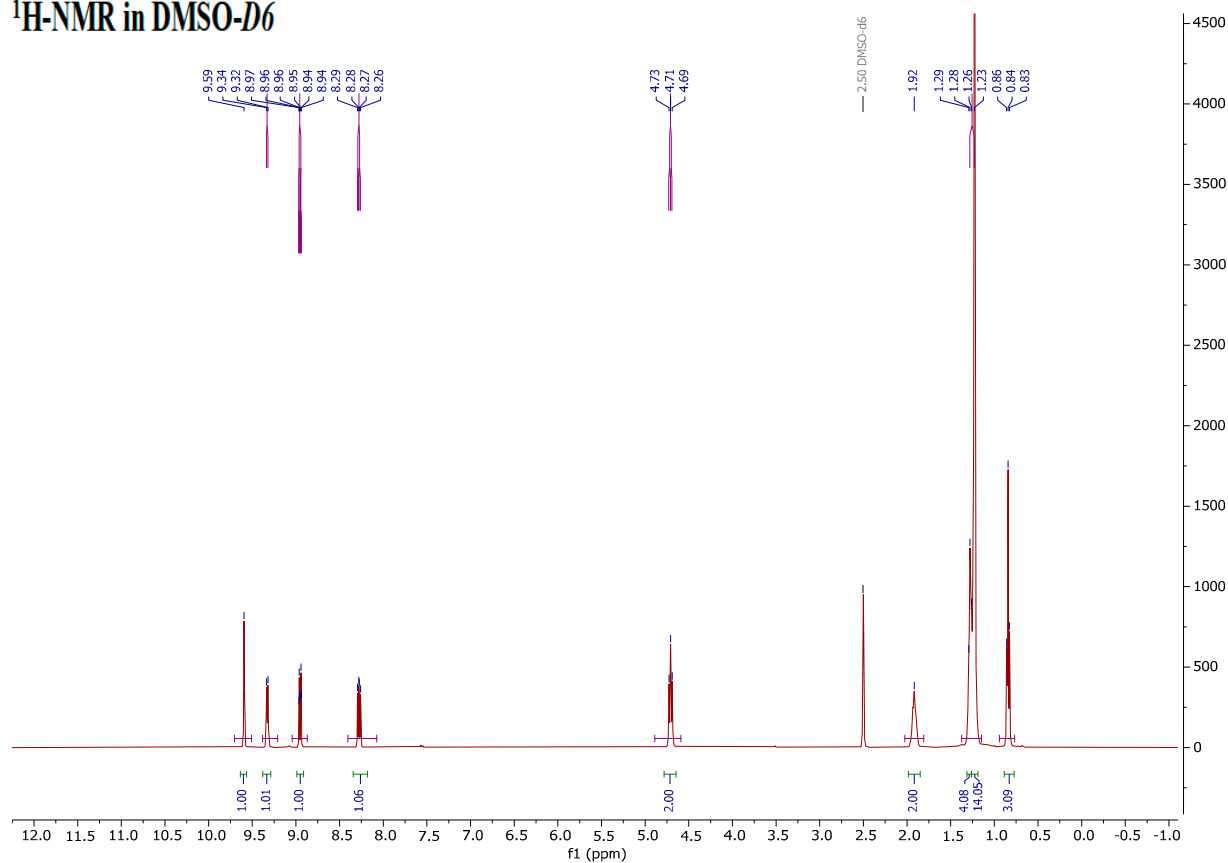


^1H -NMR in $\text{DMSO}-d_6$

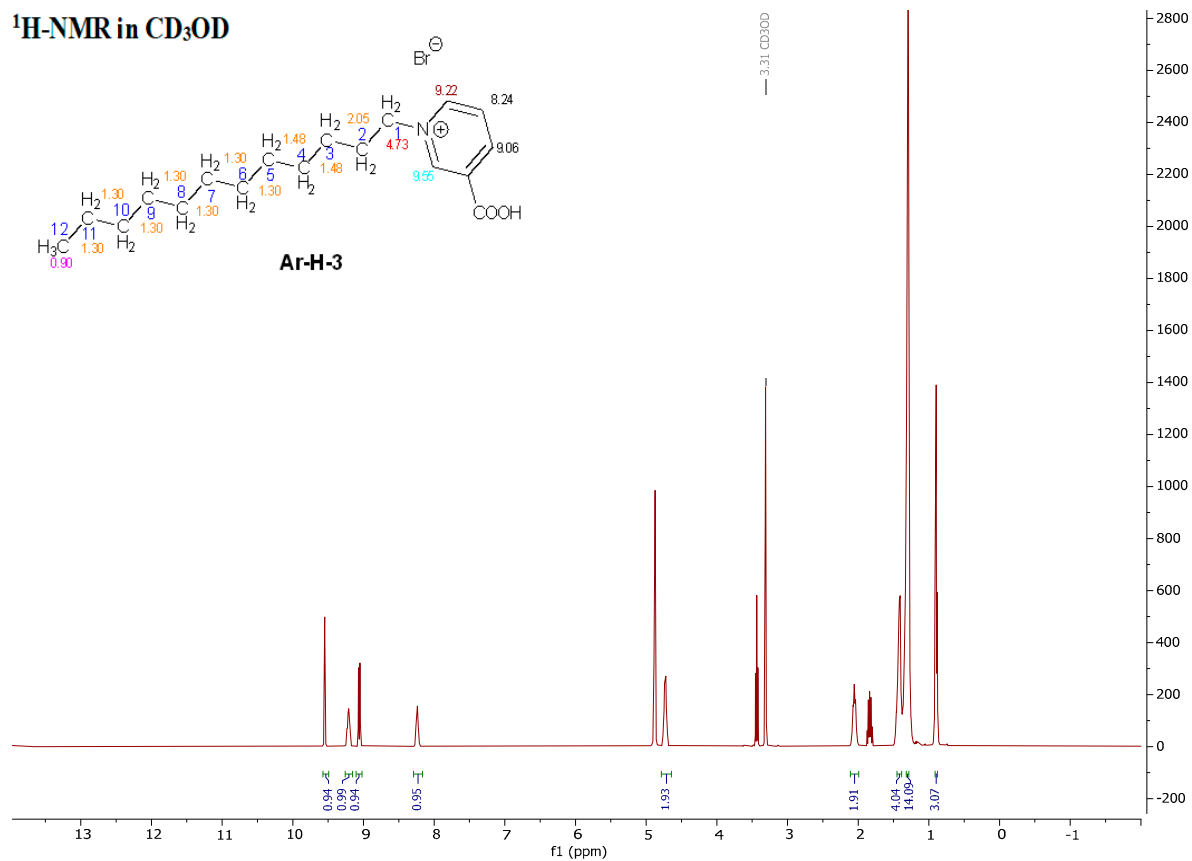


S9. ^1H -NMR of 3-carboxy-1-dodecylpyridin-1-ium (Act-3)

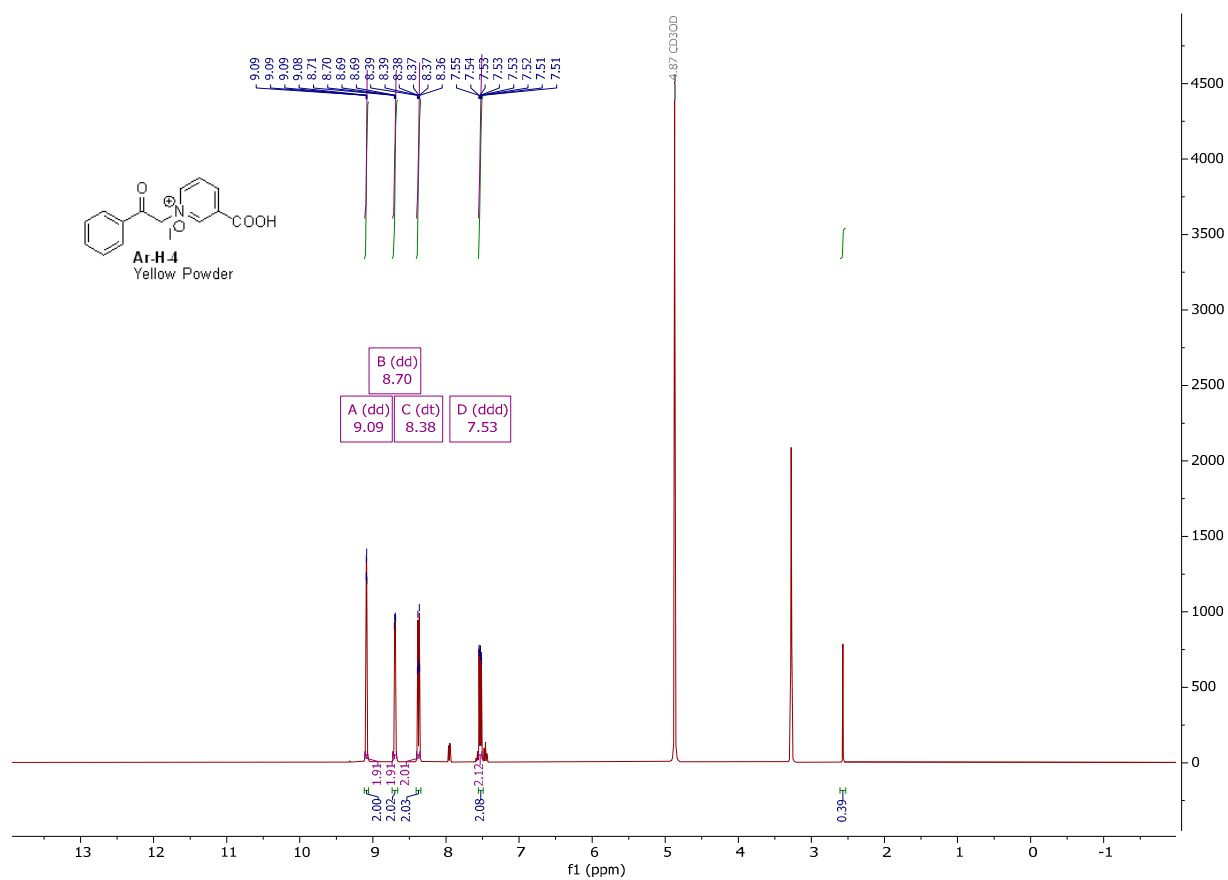
^1H -NMR in DMSO- d_6



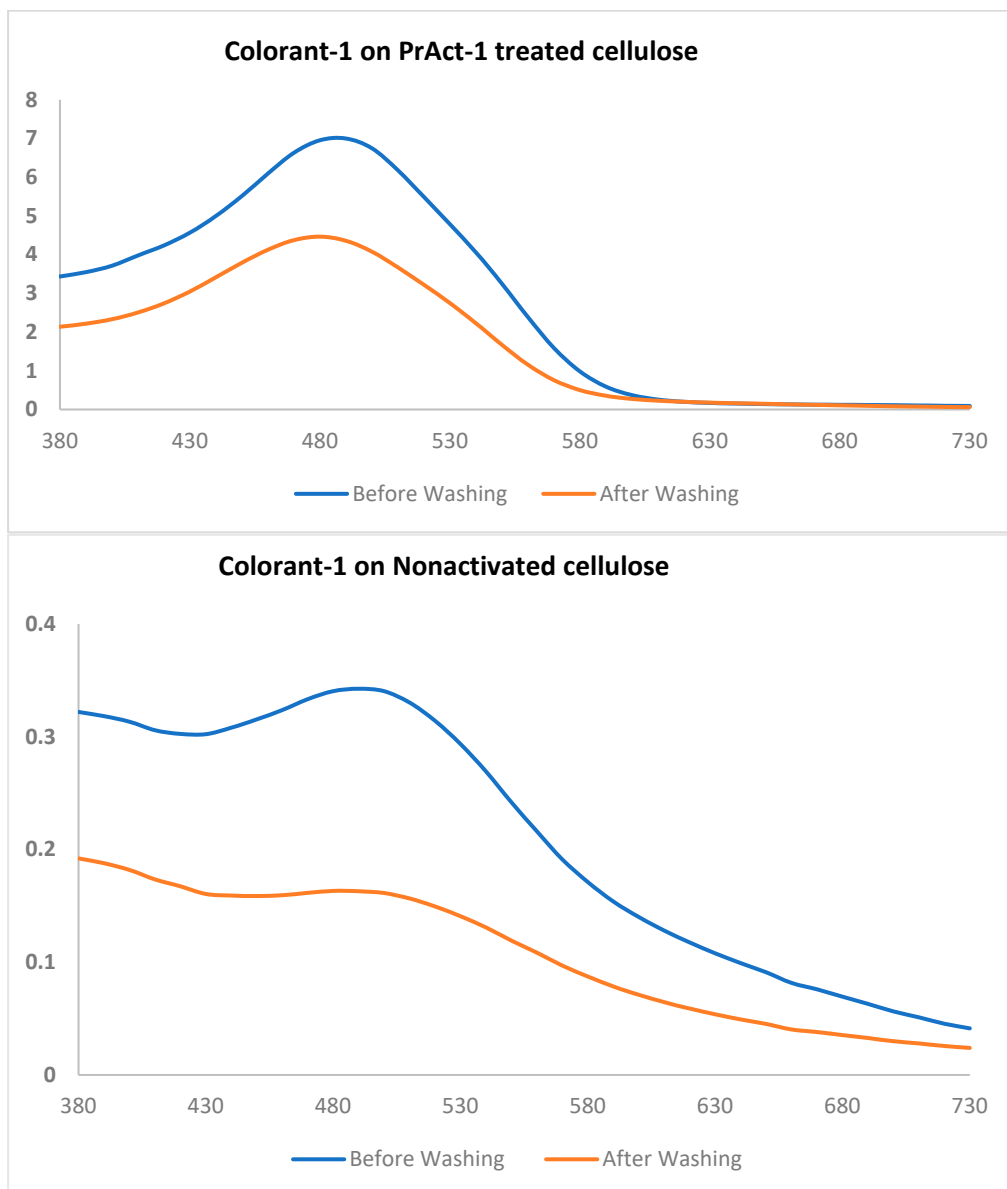
^1H -NMR in CD_3OD



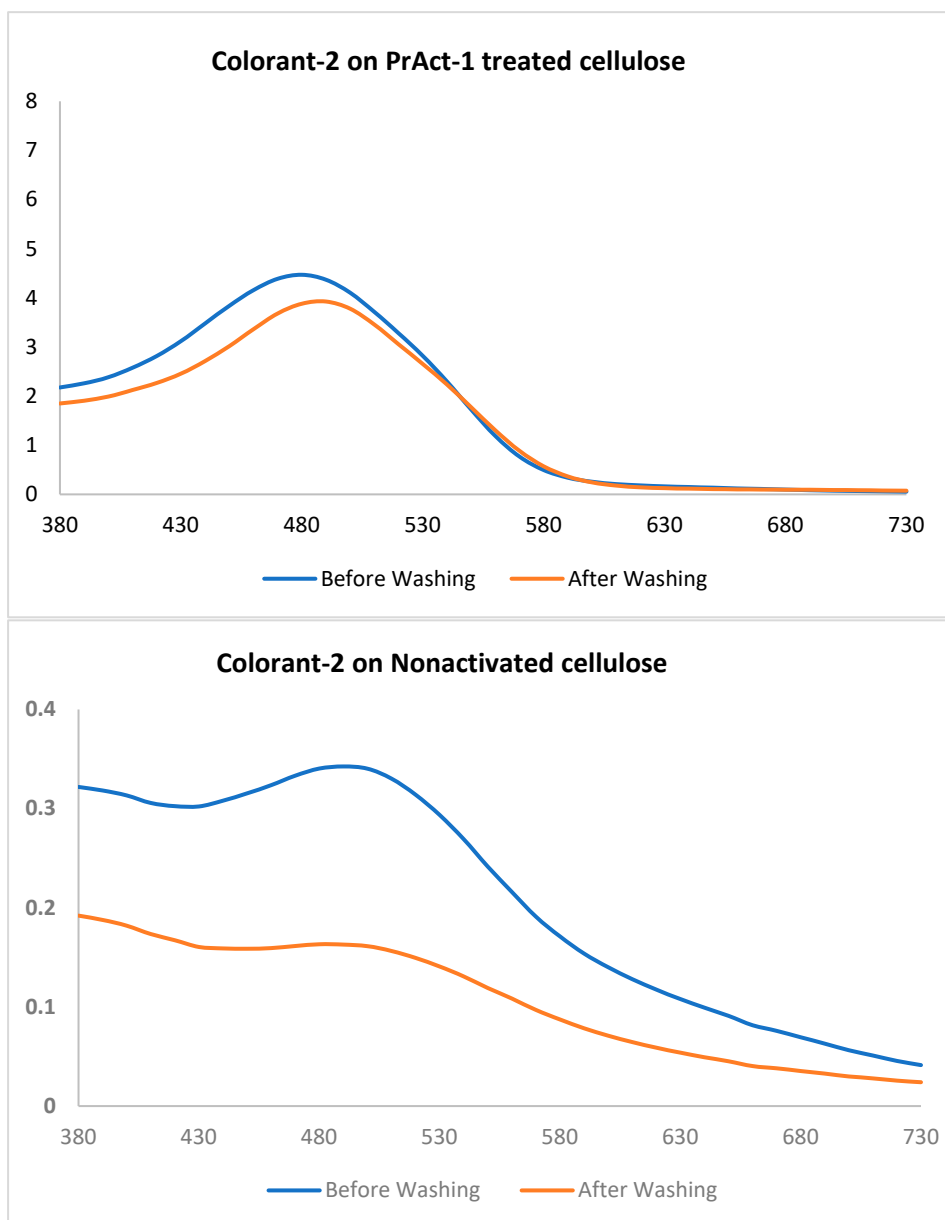
S10. ^1H -NMR of 2-nicotinyl methyl phenyl ketone (Act-4)



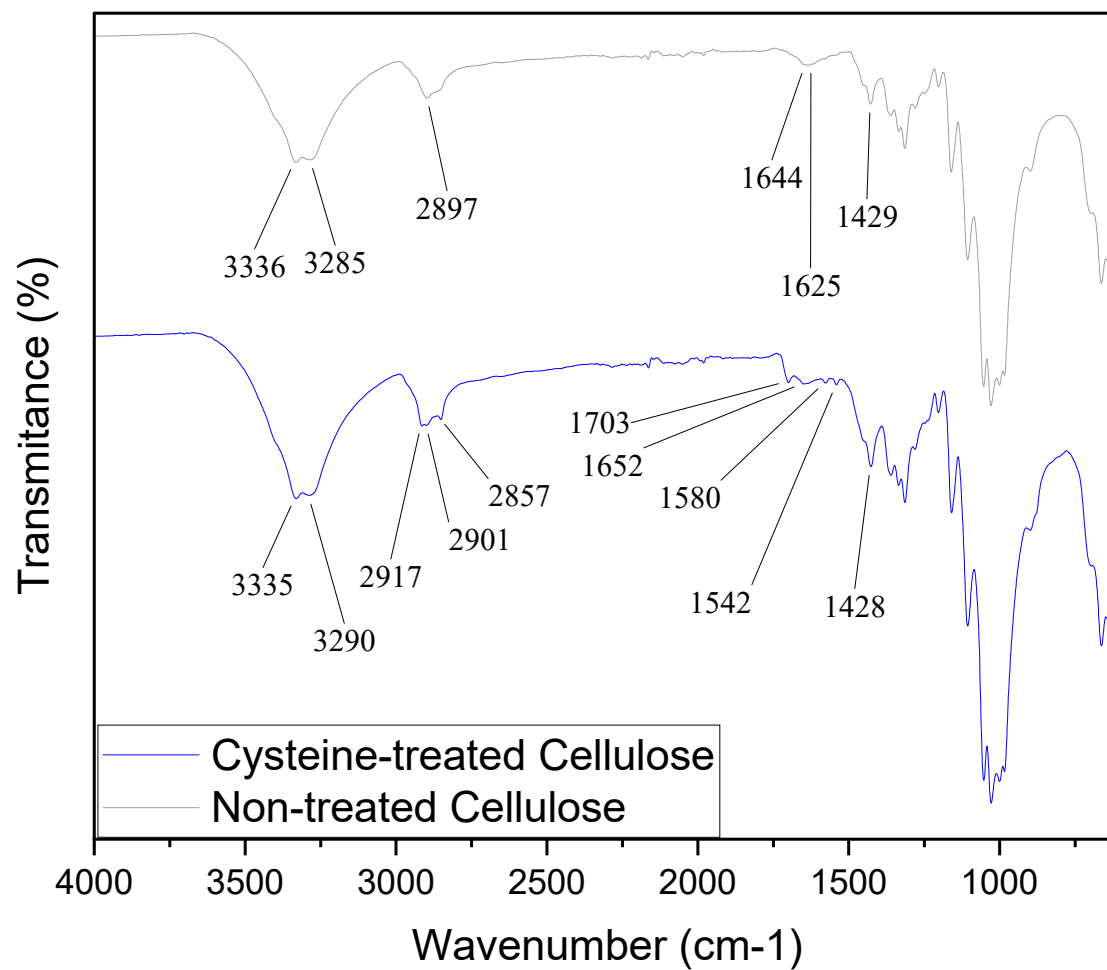
S11. Reflectance spectroscopical data for colorant-1 on PrAct-1 preactivated and nonactivated cellulose.



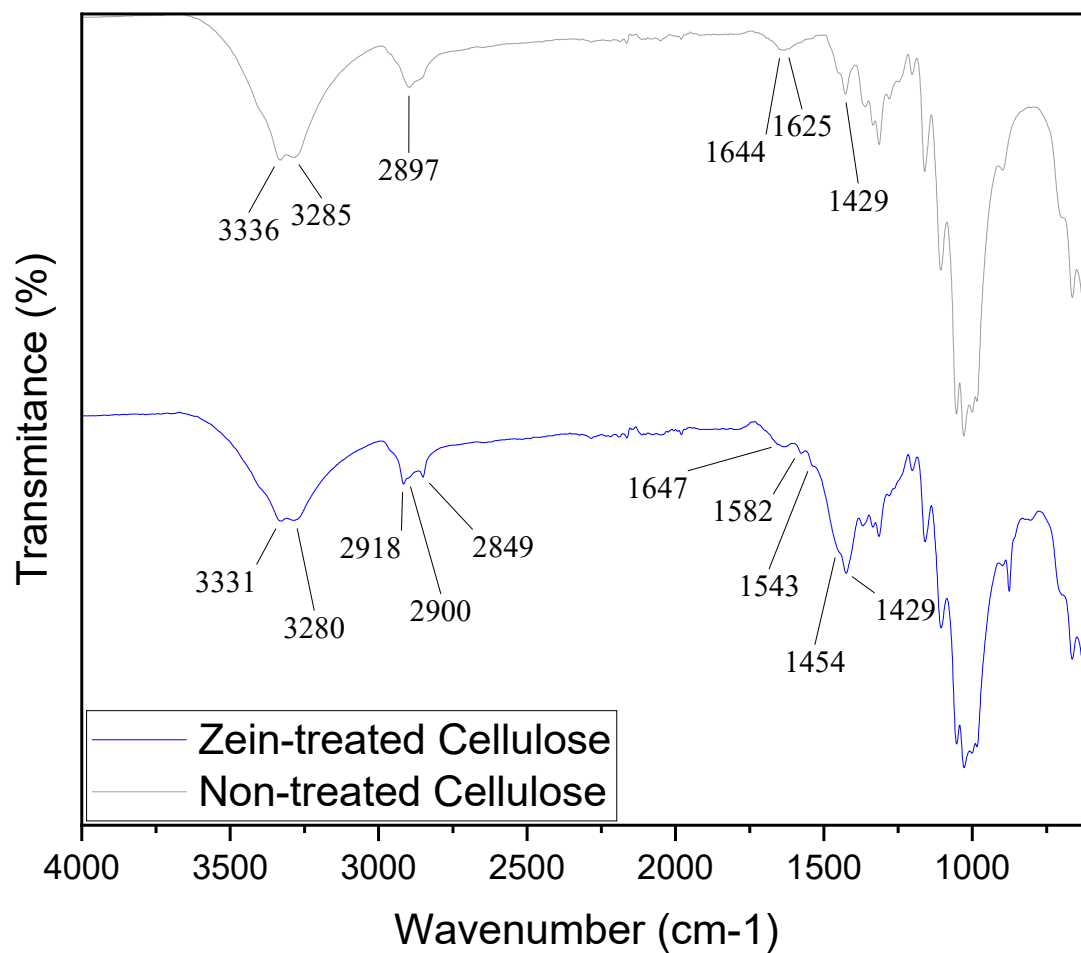
S12. Reflectance spectroscopical data for colorant-2 on PrAct-1 preactivated and nonactivated cellulose.



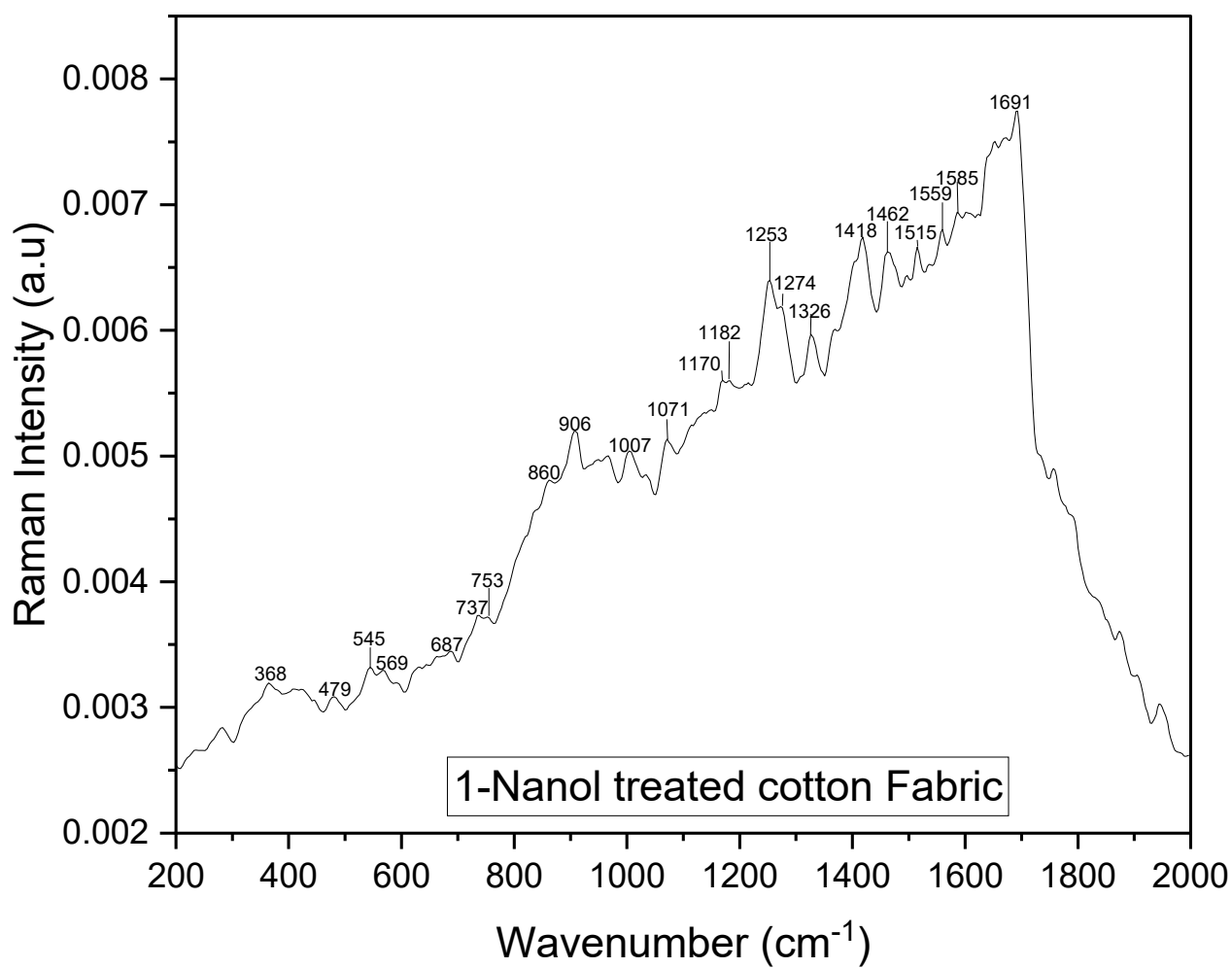
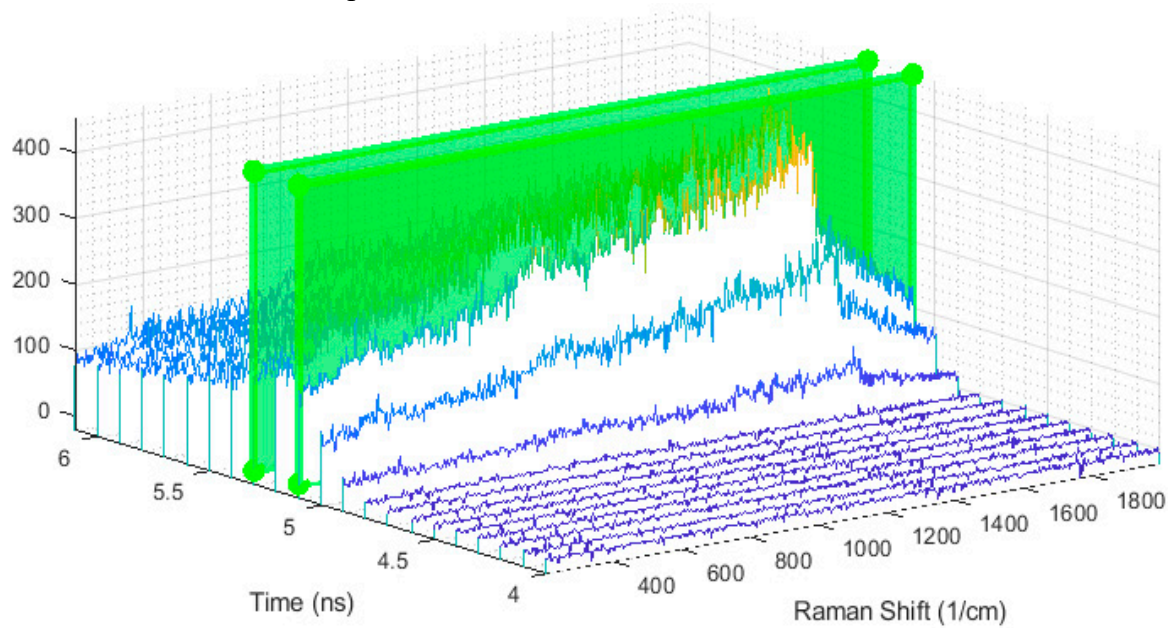
S13. FTIR Spectroscopy: Chemical characterization of Cysteine-treated preactivated cotton fabrics



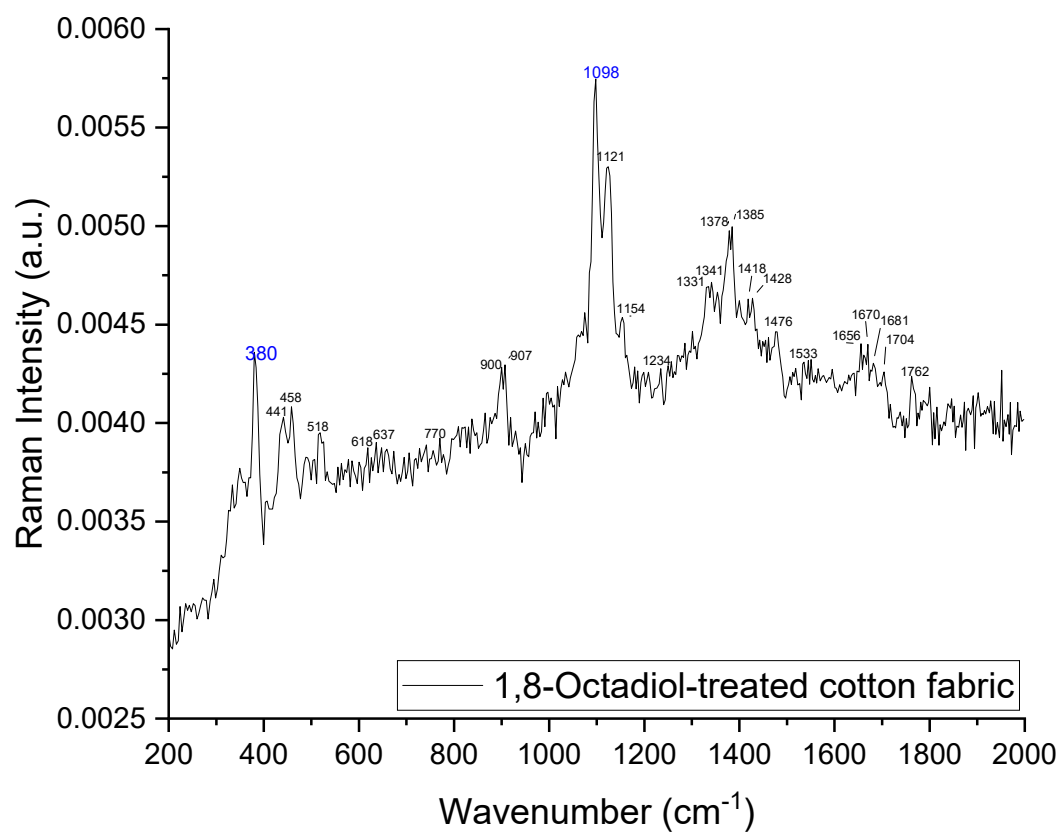
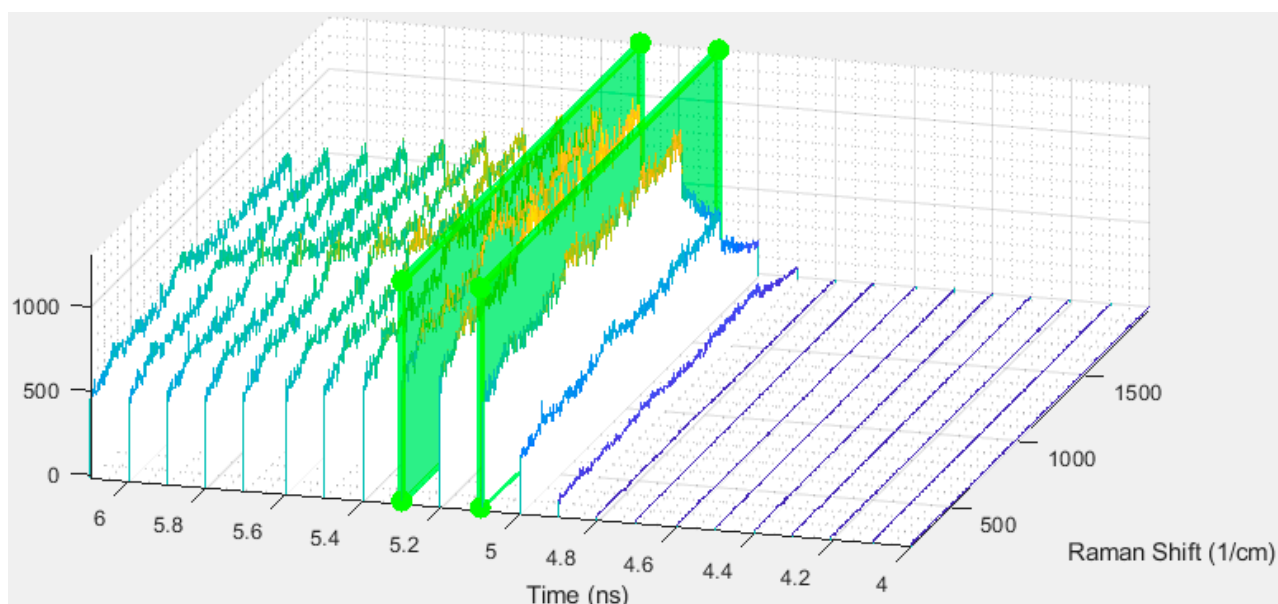
S14. FTIR Spectroscopy: Chemical characterization of Zein-treated preactivated cotton fabrics



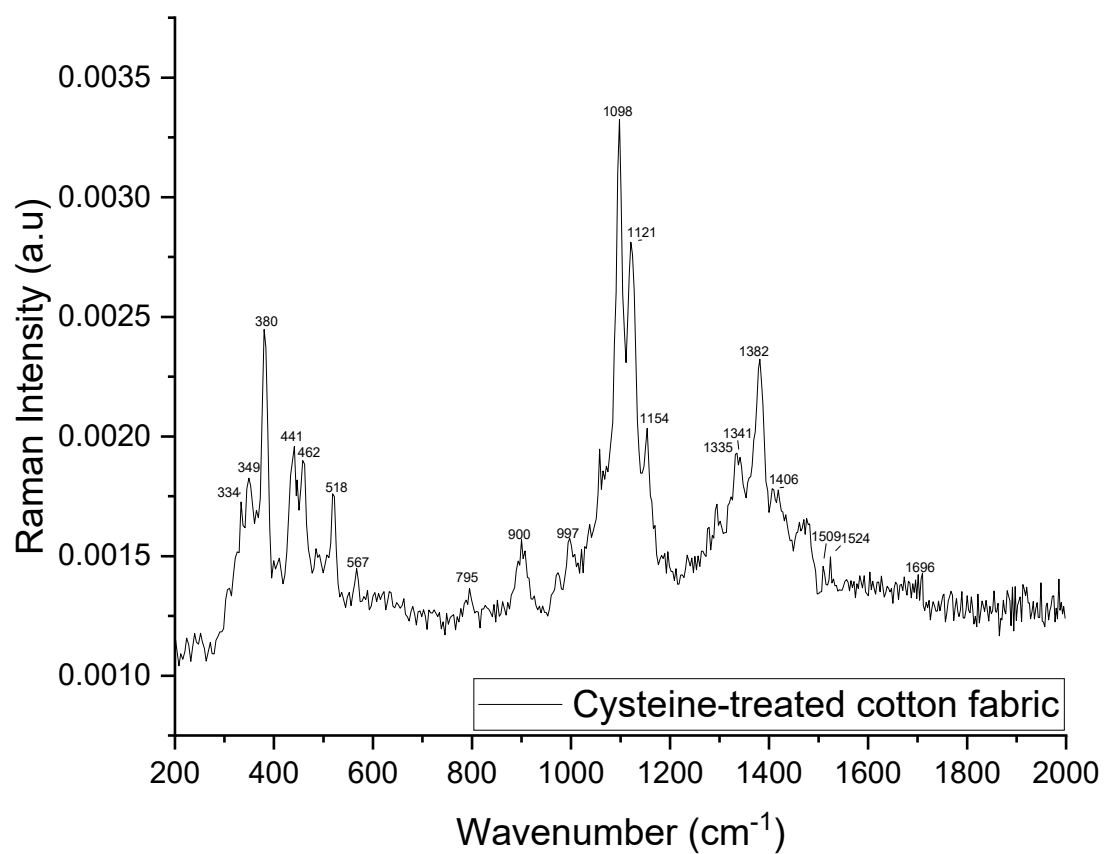
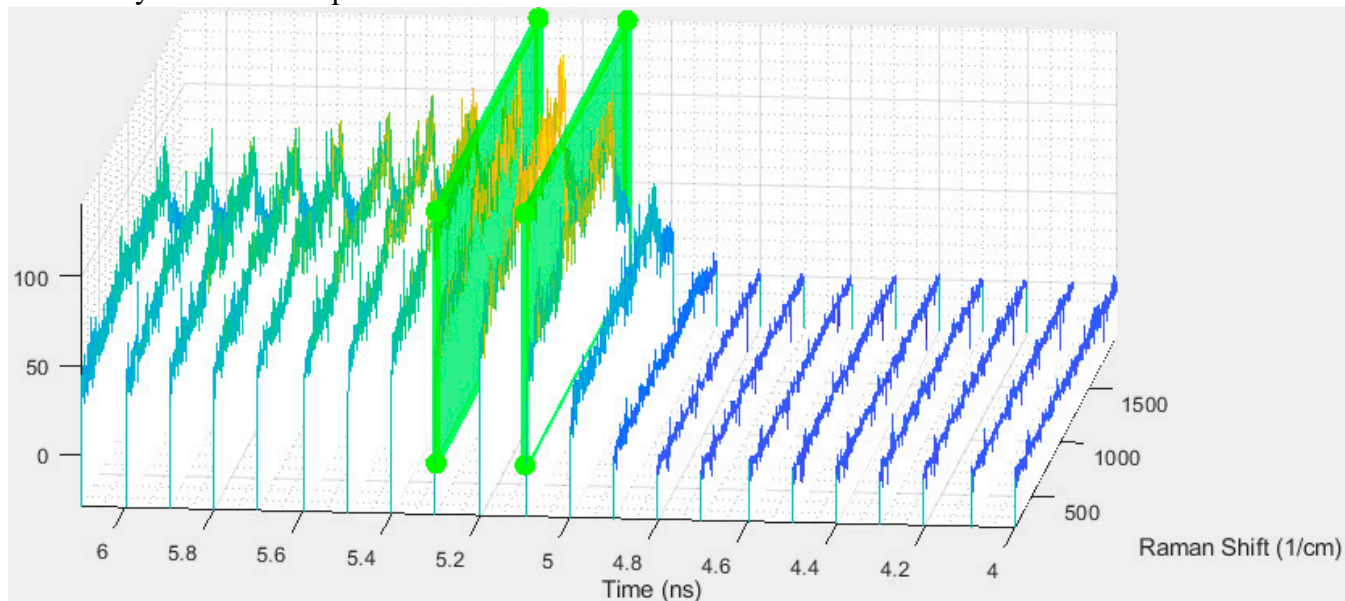
S15 1-Nonanol-treated preactivated cotton fabrics



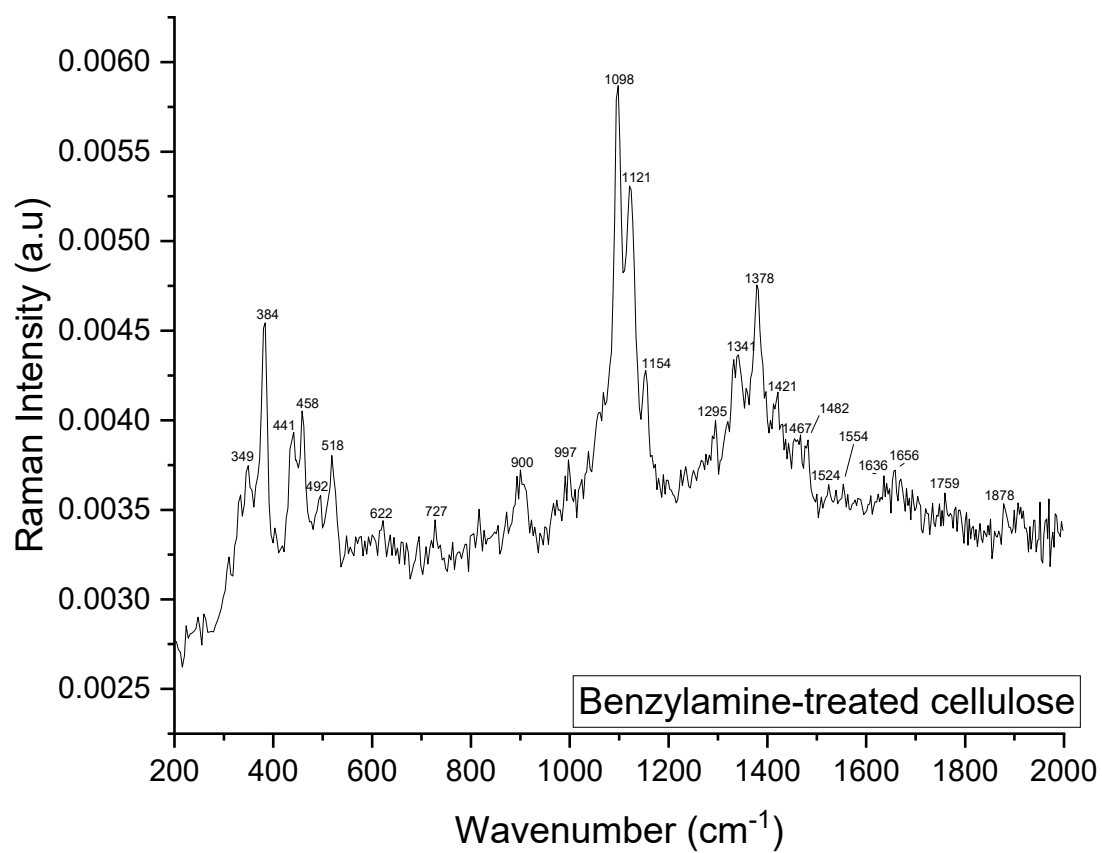
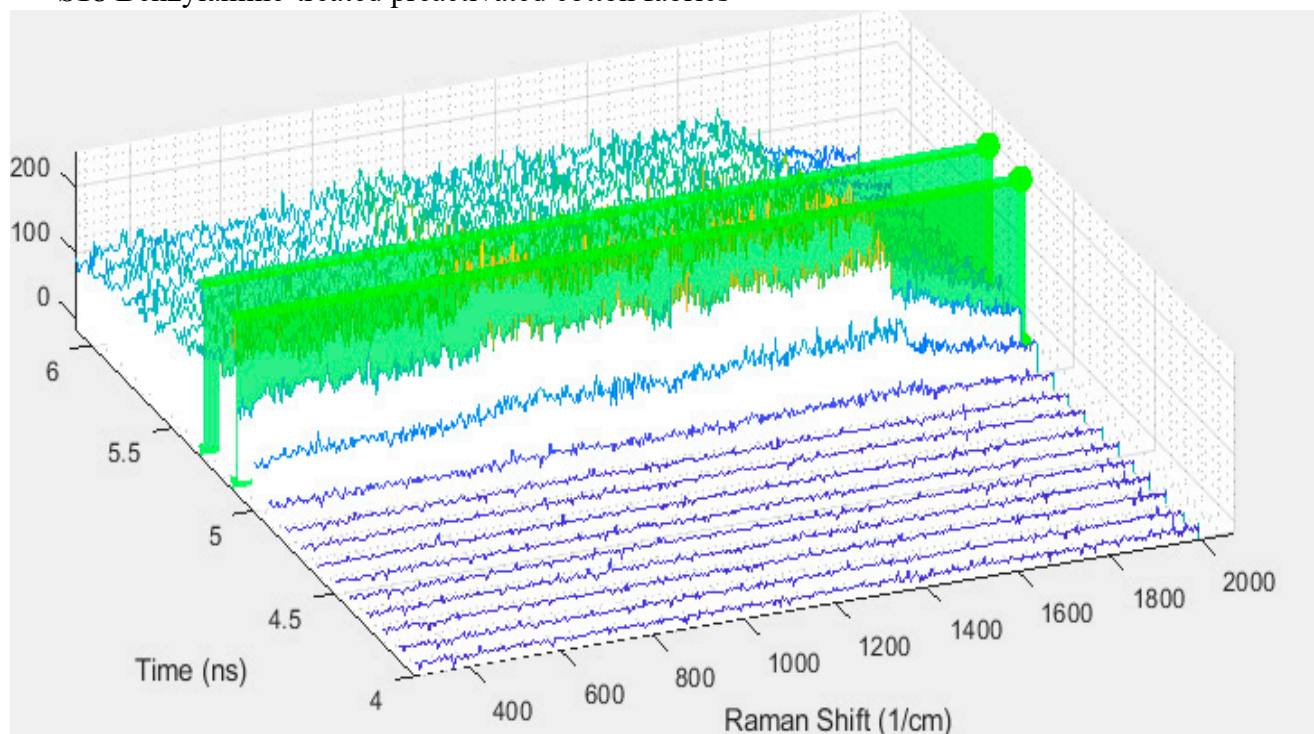
S16 1,8-Octadiol-treated preactivated cotton fabrics



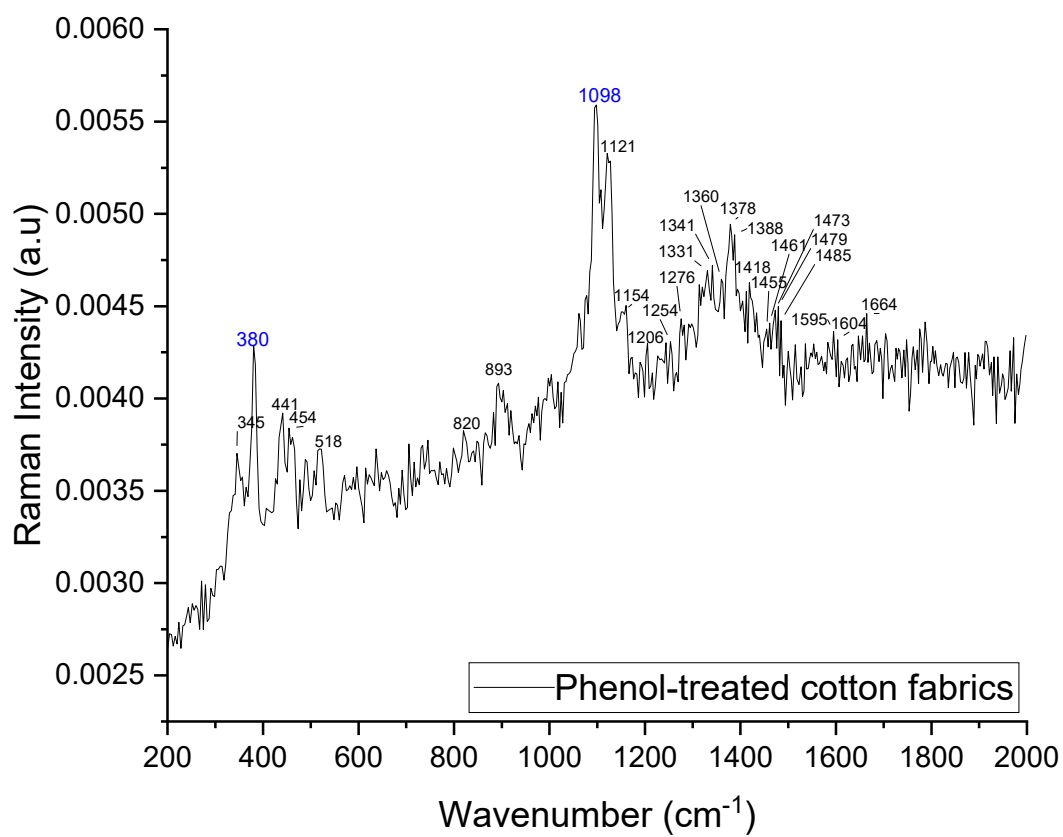
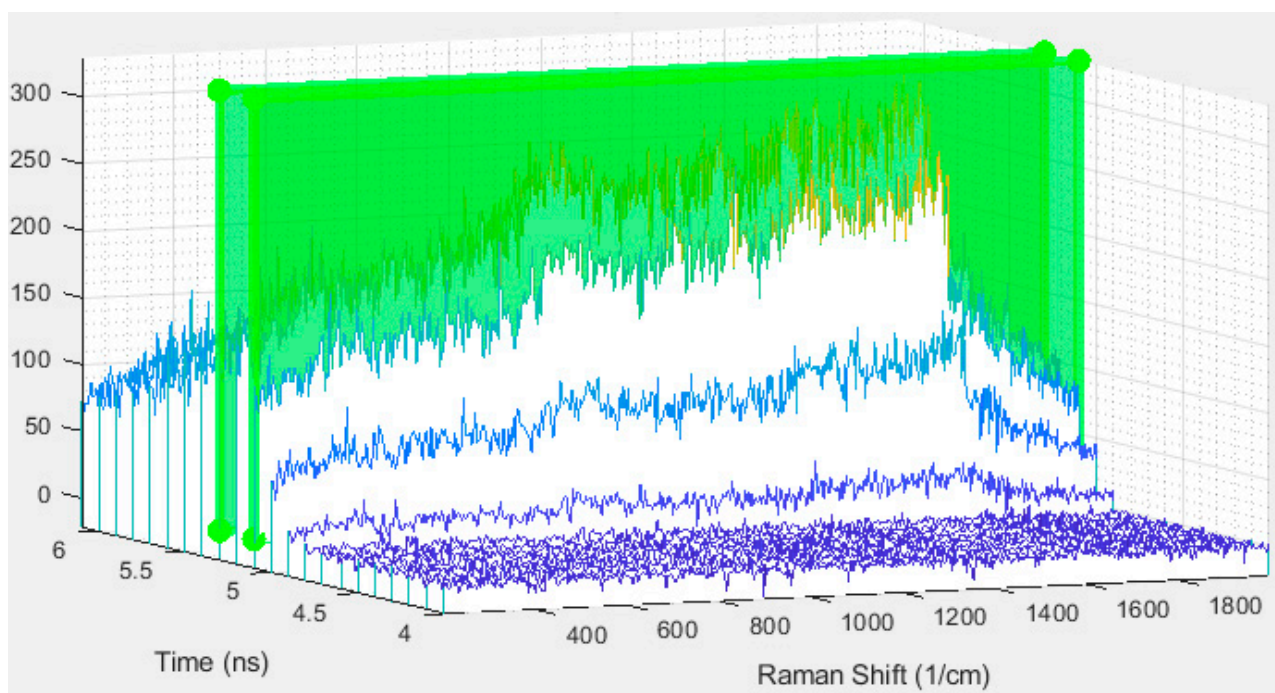
S17 Cysteine-treated preactivated cotton fabrics



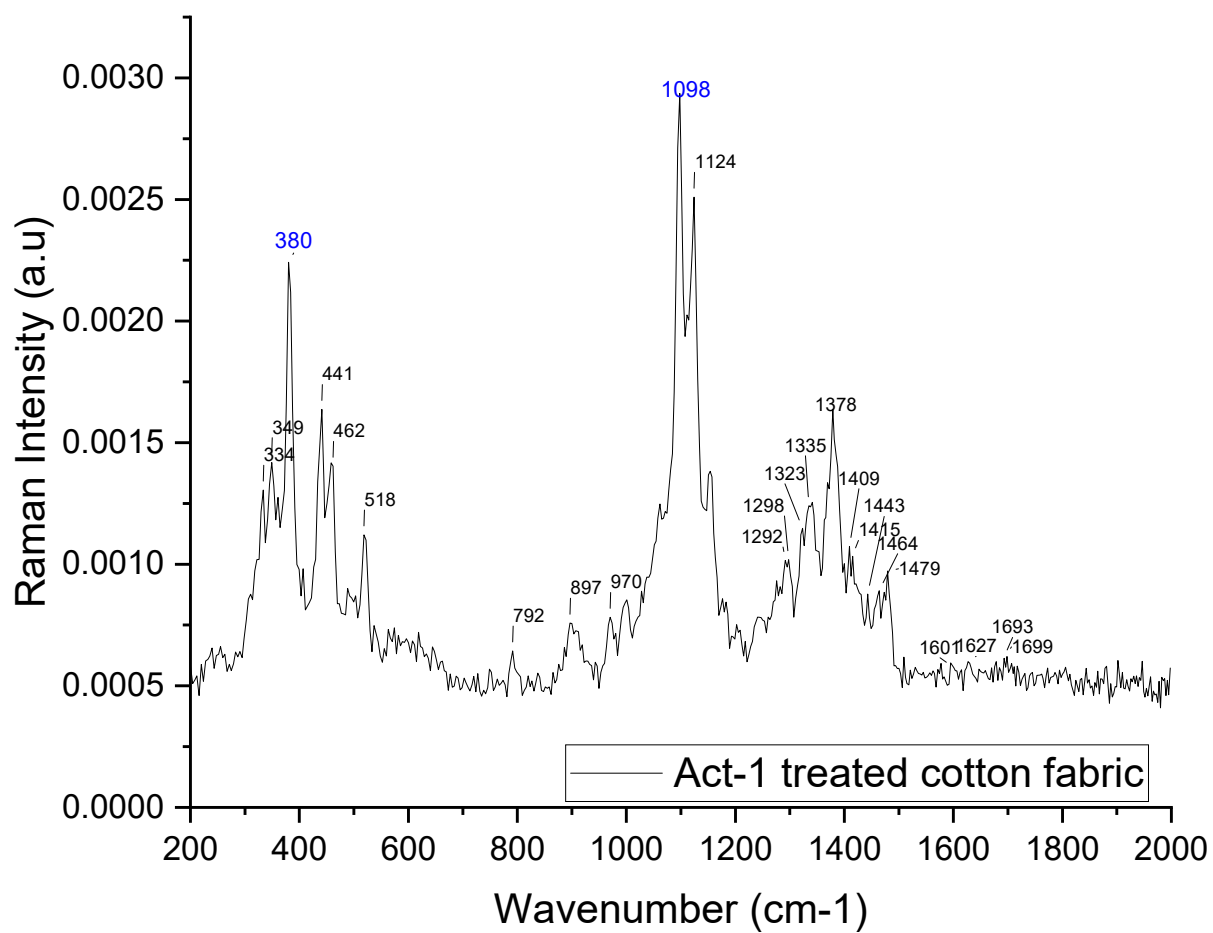
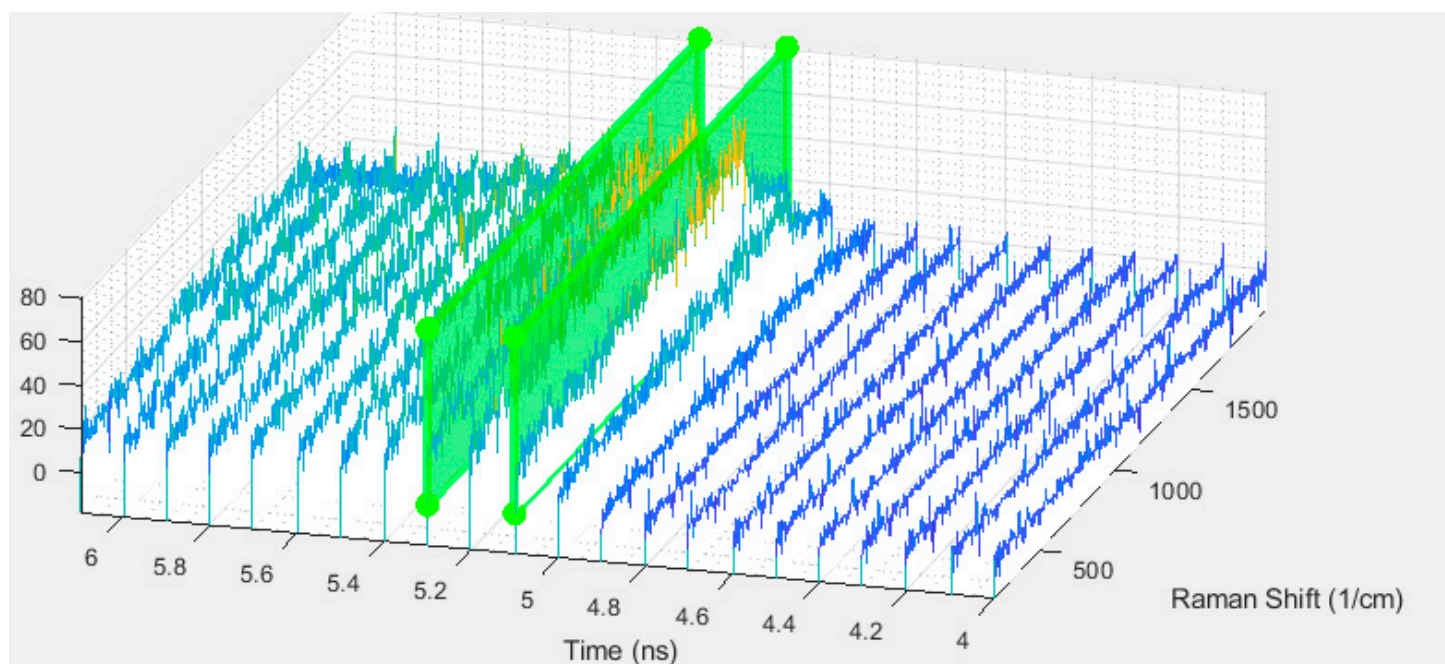
S18 Benzylamine-treated preactivated cotton fabrics



S19 Phenol-treated preactivated cotton fabrics



S20 Act-1-treated preactivated cotton fabrics



S21 Act-2-treated preactivated cotton fabrics

