

Supplementary Table S1: The concentrations of CN-Cbl obtained through the boiling, orbital shaking and ultrasonic assisted extraction methods

| Run | Parameters | | | Conconertration of CN-Cbl (mg/mL) | | | | | | | | | | | |
|-----|---|----|-----------------------------|-----------------------------------|--------|--------|--------|-----------------|--------|--------|--------|---------------------|--------|--------|--------|
| | Solvent:solvent ratio (MeOH:H ₂ O) | pH | Solute:solvent ratio (g/mL) | Boiling | | | | Orbital Shaking | | | | Ultrasonic assisted | | | |
| | | | | ODB | SDB | ADB | FDB | ODO | SDO | ADO | FDO | ODU | SDU | ADU | FDU |
| 1 | 25:75 | 3 | 3:60 | 0.0155 | 0.0090 | 0.0122 | 0.0067 | 0.0265 | 0.0155 | 0.0170 | 0.0178 | 0.0224 | 0.0131 | 0.0153 | 0.0167 |
| 2 | 25:75 | 3 | 3:60 | 0.0210 | 0.0093 | 0.0075 | 0.0066 | 0.0170 | 0.0261 | 0.0241 | 0.0245 | 0.0236 | 0.0159 | 0.0146 | 0.0148 |
| 3 | 75:25 | 3 | 3:60 | 0.0079 | 0.0049 | 0.0046 | 0.0075 | 0.0085 | 0.0257 | 0.0108 | 0.0106 | 0.0015 | 0.0207 | 0.0168 | 0.0106 |
| 4 | 75:25 | 3 | 3:60 | 0.0083 | 0.0084 | 0.0087 | 0.0054 | 0.0220 | 0.0234 | 0.0095 | 0.0139 | 0.0015 | 0.0134 | 0.0175 | 0.0133 |
| 5 | 25:75 | 5 | 3:60 | 0.0160 | 0.0075 | 0.0087 | 0.0067 | 0.0311 | 0.0176 | 0.0133 | 0.0203 | 0.0100 | 0.0116 | 0.0103 | 0.0107 |
| 6 | 25:75 | 5 | 3:60 | 0.0174 | 0.0079 | 0.0089 | 0.0068 | 0.0210 | 0.0176 | 0.0200 | 0.0262 | 0.0102 | 0.0176 | 0.0098 | 0.0153 |
| 7 | 75:25 | 5 | 3:60 | 0.0126 | 0.0071 | 0.0129 | 0.0042 | 0.0114 | 0.0159 | 0.0108 | 0.0126 | 0.0103 | 0.0145 | 0.0101 | 0.0136 |
| 8 | 75:25 | 5 | 3:60 | 0.0151 | 0.0062 | 0.0109 | 0.0056 | 0.0164 | 0.0142 | 0.0140 | 0.0272 | 0.0124 | 0.0112 | 0.0129 | 0.0092 |
| 9 | 25:75 | 3 | 3:90 | 0.0099 | 0.0071 | 0.0060 | 0.0034 | 0.0146 | 0.0246 | 0.0131 | 0.0156 | 0.0172 | 0.0107 | 0.0136 | 0.0154 |
| 10 | 25:75 | 3 | 3:90 | 0.0084 | 0.0049 | 0.0036 | 0.0053 | 0.0121 | 0.0356 | 0.0106 | 0.0185 | 0.0163 | 0.0123 | 0.0106 | 0.0165 |
| 11 | 75:25 | 3 | 3:90 | 0.0172 | 0.0089 | 0.0065 | 0.0079 | 0.0079 | 0.0268 | 0.0170 | 0.0156 | 0.0135 | 0.0175 | 0.0080 | 0.0143 |
| 12 | 75:25 | 3 | 3:90 | 0.0127 | 0.0093 | 0.0093 | 0.0056 | 0.0087 | 0.0155 | 0.0173 | 0.0158 | 0.0161 | 0.0151 | 0.0093 | 0.0154 |
| 13 | 25:75 | 5 | 3:90 | 0.0090 | 0.0038 | 0.0108 | 0.0031 | 0.0321 | 0.0161 | 0.0245 | 0.0253 | 0.0018 | 0.0160 | 0.0075 | 0.0089 |
| 14 | 25:75 | 5 | 3:90 | 0.0098 | 0.0050 | 0.0064 | 0.0046 | 0.0064 | 0.0113 | 0.0124 | 0.0244 | 0.0015 | 0.0163 | 0.0104 | 0.0091 |
| 15 | 75:25 | 5 | 3:90 | 0.0186 | 0.0068 | 0.0159 | 0.0055 | 0.0286 | 0.0138 | 0.0122 | 0.0178 | 0.0146 | 0.0098 | 0.0134 | 0.0118 |
| 16 | 75:25 | 5 | 3:90 | 0.0193 | 0.0088 | 0.0160 | 0.0080 | 0.0114 | 0.0155 | 0.0120 | 0.0215 | 0.0173 | 0.0155 | 0.0130 | 0.0108 |
| 17 | 50:50 | 4 | 3:75 | 0.0138 | 0.0059 | 0.0065 | 0.0051 | 0.0103 | 0.0295 | 0.0159 | 0.0181 | 0.0167 | 0.0125 | 0.0159 | 0.0171 |
| 18 | 50:50 | 4 | 3:75 | 0.0131 | 0.0075 | 0.0058 | 0.0066 | 0.0119 | 0.0289 | 0.0135 | 0.0198 | 0.0150 | 0.0099 | 0.0145 | 0.0197 |
| 19 | 50:50 | 4 | 3:75 | 0.0188 | 0.0055 | 0.0071 | 0.0069 | 0.0190 | 0.0307 | 0.0159 | 0.0227 | 0.0178 | 0.0117 | 0.0139 | 0.0191 |
| 20 | 50:50 | 4 | 3:75 | 0.0144 | 0.0110 | 0.0118 | 0.0054 | 0.0133 | 0.0192 | 0.0229 | 0.0127 | 0.0181 | 0.0092 | 0.0137 | 0.0167 |
| 21 | 50:50 | 4 | 3:75 | 0.0140 | 0.0104 | 0.0093 | 0.0065 | 0.0157 | 0.0155 | 0.0275 | 0.0174 | 0.0157 | 0.0105 | 0.0126 | 0.0173 |

ODB: Oven-dried, extracted by boiling method

SDB: Sun-dried sample, extracted by boiling method

ADB: Air-dried sample, extracted by boiling method

FDB: Freeze-dried, extracted by boiling method

ODO: Oven-dried, extracted by orbital shaking method

SDO: Sun-dried, extracted by orbital shaking method

ADO: Air-dried, extracted by orbital shaking method

FDO: Freeze-dried, extracted by orbital shaking method

ODU: Oven-dried, extracted by ultrasonic-assisted extraction method

SDU: Sun-dried, extracted by ultrasonic-assisted extraction method

ADU: Air-dried, extracted by ultrasonic-assisted extraction method

FDU: Freeze-dried, extracted by ultrasonic-assisted extraction method