

**Table S1.** Contents of water extract, tea polyphenols, soluble sugar, and CAF in tea infusions ( $\mu\text{g/mL}$ ).

| tea        | tea set         | Water extract         | Tea polyphenols      | Soluble sugar       | CAF                 | GA                | EGCG                 | GCG                 | ECG                 | CG                |
|------------|-----------------|-----------------------|----------------------|---------------------|---------------------|-------------------|----------------------|---------------------|---------------------|-------------------|
| green tea  | Tin pot         | 3838.21 $\pm$ 5.00d   | 1646.77 $\pm$ 26.52b | 230.15 $\pm$ 5.11a  | 509.89 $\pm$ 56.72b | 64.89 $\pm$ 0.93a | 698.85 $\pm$ 21.50bc | 47.06 $\pm$ 1.70b   | 363.74 $\pm$ 6.36c  | 11.48 $\pm$ 2.23b |
|            | Glass pot       | 4133.40 $\pm$ 26.74b  | 1458.65 $\pm$ 23.74d | 198.28 $\pm$ 7.28c  | 474.97 $\pm$ 12.28b | 56.23 $\pm$ 0.23b | 718.64 $\pm$ 20.36bc | 63.52 $\pm$ 14.53b  | 371.69 $\pm$ 22.27b | 14.64 $\pm$ 3.51b |
|            | Pottery pot     | 3936.57 $\pm$ 31.58c  | 1570.41 $\pm$ 7.65c  | 217.57 $\pm$ 6.04a  | 530.95 $\pm$ 0.45b  | 56.27 $\pm$ 6.02b | 902.03 $\pm$ 139.84a | 59.09 $\pm$ 1.12b   | 413.11 $\pm$ 10.53b | 15.53 $\pm$ 3.49b |
|            | Porcelain pot   | 4206.54 $\pm$ 196.12a | 1876.3 $\pm$ 21.83a  | 208.81 $\pm$ 4.81b  | 630.65 $\pm$ 12.74a | 60.77 $\pm$ 3.38a | 1102.79 $\pm$ 124.27 | 110.68 $\pm$ 20.87a | 523.63 $\pm$ 21.22a | 25.46 $\pm$ 4.37a |
|            | Purple sand pot | 4362.42 $\pm$ 103.62a | 1607.22 $\pm$ 44.51b | 187.93 $\pm$ 1.23d  | 428.79 $\pm$ 5.12c  | 43.95 $\pm$ 1.24a | 652.34 $\pm$ 9.67c   | 49.77 $\pm$ 0.86b   | 329.24 $\pm$ 22.58c | 11.63 $\pm$ 1.15b |
| black tea  | Tin pot         | 4220.00 $\pm$ 5.70a   | 1020.05 $\pm$ 17.54b | 153.38 $\pm$ 1.52a  | 653.41 $\pm$ 11.67a | 83.04 $\pm$ 8.15a | 72.89 $\pm$ 0.16a    | 5.74 $\pm$ 0.34c    | 38.27 $\pm$ 1.41b   | 2.19 $\pm$ 0.33a  |
|            | Glass pot       | 3477.95 $\pm$ 168.87d | 811.16 $\pm$ 27.93d  | 136.66 $\pm$ 0.99c  | 512.47 $\pm$ 12.16c | 54.48 $\pm$ 3.69c | 46.77 $\pm$ 2.18d    | 4.91 $\pm$ 0.06c    | 34.50 $\pm$ 1.80c   | 1.47 $\pm$ 0.02b  |
|            | Pottery pot     | 3377.30 $\pm$ 187.01d | 923.10 $\pm$ 10.04c  | 153.96 $\pm$ 1.25a  | 578.84 $\pm$ 4.62b  | 68.83 $\pm$ 3.95b | 56.63 $\pm$ 2.84bc   | 5.17 $\pm$ 0.25c    | 37.51 $\pm$ 0.38bc  | 1.96 $\pm$ 0.09a  |
|            | Porcelain pot   | 3795.73 $\pm$ 194.97c | 1105.78 $\pm$ 29.91a | 151.14 $\pm$ 0.94a  | 673.15 $\pm$ 6.97a  | 82.79 $\pm$ 0.55a | 59.10 $\pm$ 0.14b    | 13.03 $\pm$ 0.07b   | 45.32 $\pm$ 0.47a   | 2.18 $\pm$ 0.01a  |
|            | Purple sand pot | 3922.76 $\pm$ 109.30b | 904.51 $\pm$ 17.56c  | 146.77 $\pm$ 3.90b  | 571.65 $\pm$ 40.65b | 64.68 $\pm$ 3.65b | 51.13 $\pm$ 3.29cd   | 14.88 $\pm$ 1.53a   | 37.57 $\pm$ 1.95bc  | 2.00 $\pm$ 0.02a  |
| white tea  | Tin pot         | 1560.80 $\pm$ 79.58b  | 434.04 $\pm$ 35.21d  | 108.83 $\pm$ 4.13a  | 501.61 $\pm$ 35.46b | 38.74 $\pm$ 1.16b | 181.19 $\pm$ 18.34c  | 6.80 $\pm$ 1.00c    | 128.34 $\pm$ 14.93b | 4.14 $\pm$ 0.15b  |
|            | Glass pot       | 1493.50 $\pm$ 90.14bc | 425.74 $\pm$ 16.12d  | 93.31 $\pm$ 1.14c   | 422.08 $\pm$ 9.68c  | 23.60 $\pm$ 0.74c | 206.52 $\pm$ 7.62c   | 9.81 $\pm$ 2.50bc   | 120.05 $\pm$ 15.92b | 4.11 $\pm$ 0.30b  |
|            | Pottery pot     | 1545.01 $\pm$ 84.15b  | 532.32 $\pm$ 3.53c   | 99.82 $\pm$ 3.51ab  | 542.49 $\pm$ 5.42ab | 41.71 $\pm$ 2.57b | 255.39 $\pm$ 3.38b   | 10.05 $\pm$ 2.68bc  | 135.32 $\pm$ 4.83ab | 4.15 $\pm$ 0.17b  |
|            | Porcelain pot   | 1658.43 $\pm$ 48.47a  | 664.64 $\pm$ 32.24a  | 105.66 $\pm$ 5.27a  | 573.27 $\pm$ 8.80a  | 56.36 $\pm$ 3.03a | 305.47 $\pm$ 13.47a  | 18.60 $\pm$ 0.12a   | 161.88 $\pm$ 6.45a  | 6.32 $\pm$ 0.06a  |
|            | Purple sand pot | 1634.68 $\pm$ 24.46a  | 619.09 $\pm$ 12.76ab | 95.73 $\pm$ 5.80bc  | 533.86 $\pm$ 0.36ab | 37.41 $\pm$ 1.46b | 312.07 $\pm$ 1.53a   | 12.30 $\pm$ 1.14b   | 139.60 $\pm$ 0.54ab | 2.80 $\pm$ 0.01c  |
| oolong tea | Tin pot         | 2209.20 $\pm$ 73.05a  | 640.11 $\pm$ 1.92b   | 168.14 $\pm$ 2.09b  | 239.80 $\pm$ 2.55b  | 4.67 $\pm$ 0.47b  | 222.30 $\pm$ 5.99b   | 8.40 $\pm$ 0.66c    | 60.47 $\pm$ 0.55bc  | 3.62 $\pm$ 0.08b  |
|            | Glass pot       | 1560.76 $\pm$ 101.32c | 606.88 $\pm$ 44.12bc | 151.51 $\pm$ 2.92c  | 234.67 $\pm$ 1.28b  | 3.98 $\pm$ 0.11c  | 174.45 $\pm$ 1.64c   | 8.20 $\pm$ 0.26bc   | 50.36 $\pm$ 0.14d   | 3.63 $\pm$ 0.01b  |
|            | Pottery pot     | 1657.14 $\pm$ 120.65c | 604.41 $\pm$ 2.08bc  | 171.31 $\pm$ 4.14b  | 234.91 $\pm$ 0.70b  | 4.10 $\pm$ 0.13bc | 213.02 $\pm$ 3.28b   | 8.20 $\pm$ 0.25c    | 56.66 $\pm$ 0.09c   | 3.70 $\pm$ 0.03b  |
|            | Porcelain pot   | 1921.15 $\pm$ 41.37b  | 792.73 $\pm$ 18.01a  | 199.22 $\pm$ 10.99a | 365.45 $\pm$ 7.78a  | 5.59 $\pm$ 0.05a  | 357.94 $\pm$ 3.40a   | 21.96 $\pm$ 0.48a   | 90.00 $\pm$ 3.32a   | 3.82 $\pm$ 0.02a  |
|            | Purple sand pot | 1884.56 $\pm$ 69.62b  | 563.60 $\pm$ 34.41c  | 182.63 $\pm$ 0.09b  | 247.15 $\pm$ 11.05b | 3.93 $\pm$ 0.03c  | 221.84 $\pm$ 16.56b  | 10.07 $\pm$ 0.35b   | 61.26 $\pm$ 0.35b   | 3.71 $\pm$ 0.01a  |
| dark tea   | Tin pot         | 1686.07 $\pm$ 73.23a  | 71.71 $\pm$ 9.73b    | 129.34 $\pm$ 0.32a  | 544.52 $\pm$ 12.82d | 23.30 $\pm$ 0.09b | 2.27 $\pm$ 0.09c     | 0.30 $\pm$ 0.01c    | 3.91 $\pm$ 0.16c    | 7.38 $\pm$ 0.07b  |
|            | Glass pot       | 1380.83 $\pm$ 23.25d  | 55.11 $\pm$ 7.77c    | 114.84 $\pm$ 0.09c  | 492.66 $\pm$ 22.43c | 24.65 $\pm$ 1.15c | 2.17 $\pm$ 0.19cd    | 0.22 $\pm$ 0.01d    | 3.16 $\pm$ 0.18d    | 6.14 $\pm$ 0.19d  |
|            | Pottery pot     | 1463.17 $\pm$ 79.17c  | 71.04 $\pm$ 0.68b    | 119.38 $\pm$ 5.96b  | 508.99 $\pm$ 25.37b | 27.09 $\pm$ 1.19d | 3.52 $\pm$ 0.00b     | 0.47 $\pm$ 0.01b    | 4.45 $\pm$ 0.05b    | 6.57 $\pm$ 0.25c  |
|            | Porcelain pot   | 1548.83 $\pm$ 84.20b  | 91.25 $\pm$ 0.69a    | 137.61 $\pm$ 1.47a  | 629.32 $\pm$ 17.14a | 32.40 $\pm$ 0.84a | 7.39 $\pm$ 0.26a     | 0.94 $\pm$ 0.06a    | 7.78 $\pm$ 0.27a    | 9.38 $\pm$ 0.04a  |
|            | Purple sand pot | 1743.86 $\pm$ 61.69a  | 69.22 $\pm$ 1.02bc   | 116.6 $\pm$ 7.52c   | 557.89 $\pm$ 15.44b | 20.21 $\pm$ 0.13d | 1.86 $\pm$ 0.00d     | 0.27 $\pm$ 0.02cd   | 2.95 $\pm$ 0.24d    | 6.39 $\pm$ 0.04cd |

**Table S2.** Contents of flavonoids and amino acids in tea infusions ( $\mu\text{g/mL}$ ).

| tea       | tea set         | Myricetin-glycosides | Vitexin-glycosides | Quercetin-glycosides | Kaempferid e-glycosides | Asp                | Glu                | Asn                | Gln               | $\gamma$ -GABA    | Thea                |
|-----------|-----------------|----------------------|--------------------|----------------------|-------------------------|--------------------|--------------------|--------------------|-------------------|-------------------|---------------------|
| green tea | Tin pot         | 6.79 $\pm$ 0.29a     | 4.47 $\pm$ 0.16a   | 1.05 $\pm$ 0.15b     | 0.84 $\pm$ 0.08a        | 48.98 $\pm$ 0.78a  | 68.85 $\pm$ 0.50a  | 8.67 $\pm$ 0.27a   | 53.54 $\pm$ 0.54a | 7.93 $\pm$ 0.62a  | 347.77 $\pm$ 1.22a  |
|           | Glass pot       | 5.21 $\pm$ 0.01bc    | 3.72 $\pm$ 0.10b   | 0.24 $\pm$ 0.00b     | 0.65 $\pm$ 0.06b        | 35.50 $\pm$ 2.54d  | 49.47 $\pm$ 2.82d  | 5.53 $\pm$ 0.05c   | 32.84 $\pm$ 1.37b | 5.80 $\pm$ 0.07d  | 238.85 $\pm$ 4.77d  |
|           | Pottery pot     | 5.60 $\pm$ 0.03bc    | 4.31 $\pm$ 0.20a   | 0.35 $\pm$ 0.01b     | 0.75 $\pm$ 0.03ab       | 42.19 $\pm$ 1.21b  | 58.30 $\pm$ 0.32b  | 6.03 $\pm$ 0.13b   | 38.32 $\pm$ 1.13b | 7.02 $\pm$ 0.20b  | 276.28 $\pm$ 11.71b |
|           | Porcelain pot   | 5.90 $\pm$ 0.95ab    | 4.62 $\pm$ 0.28a   | 0.35 $\pm$ 0.01b     | 0.84 $\pm$ 0.07a        | 39.94 $\pm$ 0.47bc | 55.77 $\pm$ 1.39bc | 5.77 $\pm$ 0.04bc  | 39.59 $\pm$ 7.10b | 6.63 $\pm$ 0.15bc | 263.29 $\pm$ 0.85bc |
|           | Purple sand pot | 4.44 $\pm$ 0.02c     | 3.54 $\pm$ 0.13b   | 17.37 $\pm$ 5.36a    | 0.61 $\pm$ 0.01b        | 36.75 $\pm$ 0.74cd | 51.84 $\pm$ 3.04cd | 5.78 $\pm$ 0.04bc  | 33.61 $\pm$ 0.94b | 6.16 $\pm$ 0.05cd | 250.58 $\pm$ 3.45cd |
| black tea | Tin pot         | 5.00 $\pm$ 0.34b     | 11.04 $\pm$ 0.58b  | 9.58 $\pm$ 0.14b     | 10.55 $\pm$ 0.00b       | 17.97 $\pm$ 0.06a  | 21.71 $\pm$ 0.62a  | 16.22 $\pm$ 0.86a  | 9.91 $\pm$ 0.19a  | 4.38 $\pm$ 0.08a  | 190.84 $\pm$ 7.25a  |
|           | Glass pot       | 3.85 $\pm$ 0.16d     | 8.76 $\pm$ 0.24d   | 7.43 $\pm$ 0.29c     | 8.20 $\pm$ 0.28e        | 15.32 $\pm$ 0.18b  | 18.27 $\pm$ 0.52b  | 14.37 $\pm$ 0.24bc | 8.36 $\pm$ 0.01d  | 3.32 $\pm$ 0.50c  | 158.86 $\pm$ 1.78b  |
|           | Pottery pot     | 4.53 $\pm$ 0.04bc    | 10.10 $\pm$ 0.52bc | 8.49 $\pm$ 0.30bc    | 9.48 $\pm$ 0.11c        | 15.94 $\pm$ 0.60b  | 18.39 $\pm$ 0.57b  | 14.58 $\pm$ 0.81bc | 8.72 $\pm$ 0.08c  | 3.66 $\pm$ 0.00bc | 160.26 $\pm$ 6.69b  |

|            |                 |             |             |             |             |              |             |              |             |             |              |
|------------|-----------------|-------------|-------------|-------------|-------------|--------------|-------------|--------------|-------------|-------------|--------------|
| white tea  | Porcelain pot   | 5.67±0.08a  | 12.38±0.14a | 11.30±0.17a | 11.36±0.05a | 17.24±0.08a  | 20.75±0.06a | 15.41±0.06ab | 9.51±0.01b  | 4.12±0.03ab | 183.39±1.82a |
|            | Purple sand pot | 4.50±0.13c  | 9.74±0.07c  | 9.17±1.01b  | 8.83±0.16d  | 15.54±0.81b  | 18.01±0.01b | 13.77±0.21c  | 8.53±0.16cd | 3.70±0.22bc | 162.73±6.97b |
|            | Tin pot         | 3.76±0.03c  | 0.61±0.00d  | 10.96±0.01c | 0.67±0.11ab | 16.26±0.44c  | 17.69±0.01a | 23.04±1.43c  | 10.71±0.02a | 12.95±0.11b | 236.28±2.79a |
|            | Glass pot       | 2.80±0.03d  | 0.48±0.01e  | 9.50±0.05d  | 0.47±0.01c  | 22.95±0.03ab | 15.18±0.01c | 19.90±0.06c  | 7.82±0.03c  | 12.20±0.06b | 226.80±0.47b |
|            | Pottery pot     | 4.08±0.14b  | 0.70±0.01c  | 11.83±1.04c | 0.65±0.01ab | 16.10±0.98c  | 16.72±0.30b | 23.22±0.70d  | 6.52±0.35d  | 14.23±0.71a | 236.78±1.05a |
|            | Porcelain pot   | 5.17±0.10a  | 2.40±0.01a  | 20.73±0.43a | 0.68±0.01a  | 22.08±0.49b  | 9.82±0.04d  | 38.91±0.52a  | 10.99±0.14a | 15.06±0.06a | 174.62±0.21c |
|            | Purple sand pot | 3.06±0.20d  | 1.63±0.01b  | 17.71±0.22b | 0.54±0.05bc | 24.47±1.08a  | 8.86±0.06e  | 26.19±0.62b  | 9.77±0.21b  | 8.55±0.01b  | 155.44±2.02d |
|            | Tin pot         | 11.29±0.02c | 7.42±0.17bc | 0.70±0.02c  | 0.51±0.01c  | 4.93±0.15c   | 10.16±0.51b | 0.60±0.00e   | 2.16±0.05c  | 0.51±0.04a  | 41.46±2.14bc |
|            | Glass pot       | 9.90±0.26d  | 7.43±0.06bc | 0.67±0.00c  | 0.36±0.00c  | 4.63±0.06d   | 3.54±0.00d  | 0.78±0.08c   | 0.49±0.03d  | 0.03±0.00c  | 37.94±0.08cd |
|            | Pottery pot     | 9.82±0.25d  | 7.84±0.02b  | 0.72±0.01d  | 0.33±0.00c  | 4.27±0.03e   | 5.77±0.08c  | 0.83±0.01b   | 2.57±0.02b  | 0.51±0.00a  | 33.60±0.11d  |
|            | Porcelain pot   | 17.22±0.37a | 9.89±0.15a  | 1.14±0.05a  | 0.74±0.01a  | 7.13±0.11a   | 11.87±0.63a | 0.97±0.05a   | 4.08±0.06a  | 0.56±0.01a  | 54.10±3.81a  |
|            | Purple sand pot | 13.52±0.53b | 7.01±0.40c  | 0.86±0.01b  | 0.49±0.05b  | 5.95±0.03b   | 9.40±0.02b  | 0.64±0.00d   | 2.11±0.00c  | 0.41±0.04b  | 45.67±4.50b  |
| oolong tea | Tin pot         | 2.54±0.14b  | 4.70±0.04e  | 2.17±0.06c  | 0.54±0.02d  | 0.46±0.01e   | 0.45±0.04d  | 0.21±0.00e   | 0.32±0.02b  | 0.18±0.00c  | 0.78±0.01c   |
|            | Glass pot       | 2.34±0.10b  | 5.73±0.29d  | 1.76±0.02d  | 0.79±0.03c  | 0.65±0.06d   | 0.49±0.01d  | 0.26±0.01d   | 0.58±0.02a  | 0.24±0.01b  | 0.53±0.01d   |
|            | Pottery pot     | 3.47±0.17a  | 6.32±0.08c  | 2.38±0.07c  | 1.25±0.12b  | 0.86±0.01c   | 0.61±0.00c  | 0.28±0.01c   | 0.57±0.01a  | 0.26±0.01a  | 1.16±0.01b   |
|            | Porcelain pot   | 3.55±0.08a  | 9.70±0.05a  | 4.30±0.31a  | 1.47±0.01a  | 1.11±0.01b   | 0.72±0.01b  | 0.40±0.00b   | 0.62±0.01a  | 0.27±0.00a  | 1.65±0.01a   |
|            | Purple sand pot | 3.78±0.17a  | 7.22±0.04b  | 3.50±0.00b  | 1.38±0.00ab | 6.38±0.05a   | 0.95±0.01a  | 1.29±0.01a   | 0.36±0.04b  | 0.05±0.00d  | 0.29±0.01e   |

Table S3. Weight of evaluation factors for each tea category (%).

| Tea        | Appearance (a) | Infusion color (b) | Aroma (c) | Taste (d) | Leaf residue (e) |
|------------|----------------|--------------------|-----------|-----------|------------------|
| Green tea  | 25             | 10                 | 25        | 30        | 10               |
| Black tea  | 25             | 10                 | 25        | 30        | 10               |
| Oolong tea | 20             | 5                  | 30        | 35        | 10               |
| Dark tea   | 20             | 15                 | 25        | 30        | 10               |
| White tea  | 25             | 10                 | 25        | 30        | 10               |