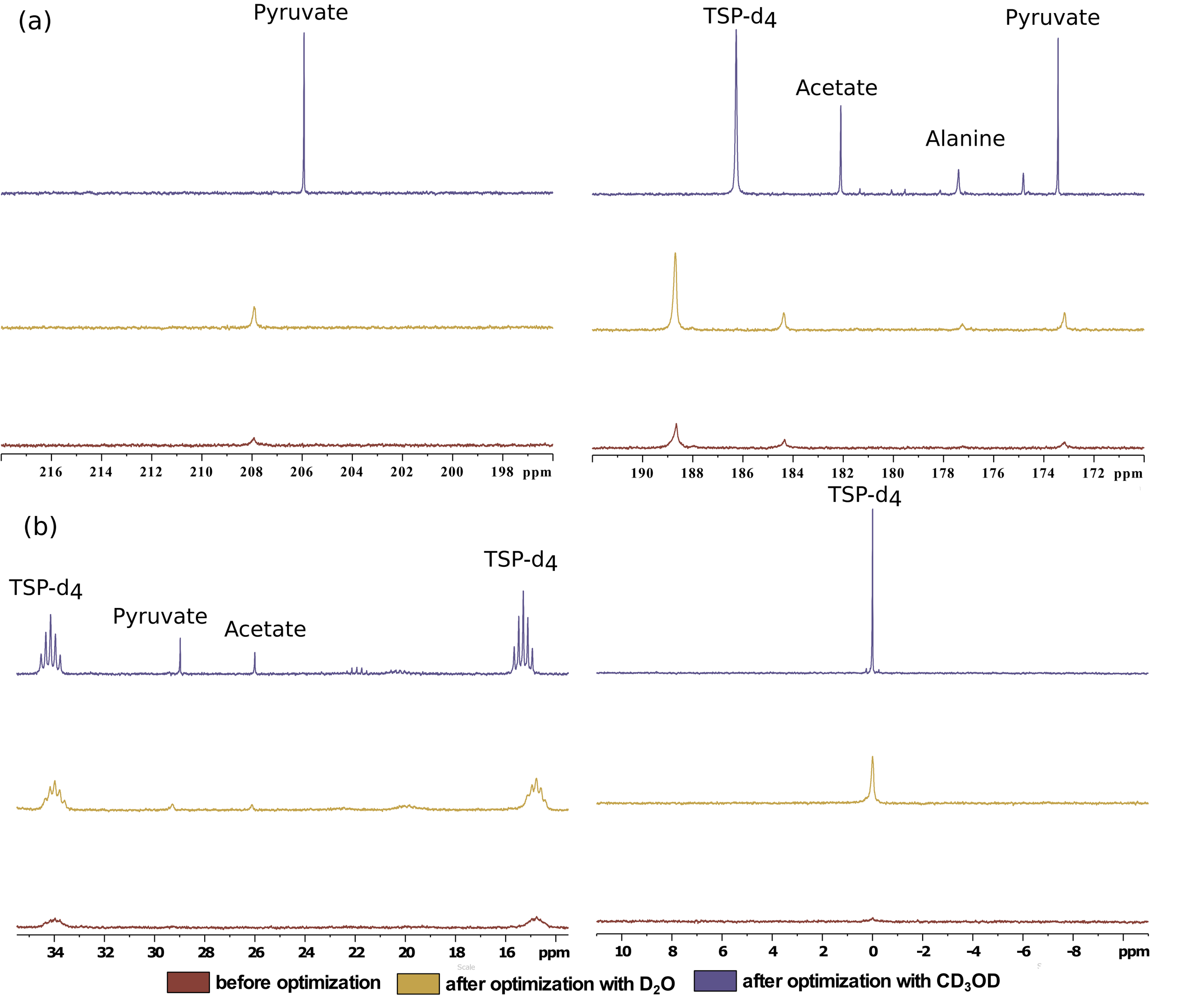
(a)
Pyruvate
TSP-d4
Acetate
Alanine
Pyruvate
216 214 212 210 208 206 204 202 200 198 ppm
190 188 186 184 182 180 178 176 174 172 ppm
(b)
TSP-d4
Pyruvate
Acetate
TSP-d4
TSP-d4
34 32 30 28 26 24 22 20 18 16 ppm
10 8 6 4 2 0 -2 -4 -6 -8 ppm
before optimization
after optimization with D2O
after optimization with CD3OD