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SUPPLEMENTARY MATERIAL TO  
**Introducing a novel crystal form of pyruvic acid  
thiosemicarbazone and its sodium salt**

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ANALYTICAL AND SPECTRAL DATA

*H*<sub>2</sub>pt·0.5H<sub>2</sub>O (1)

Anal. Calc. for C<sub>4</sub>H<sub>7</sub>N<sub>3</sub>O<sub>2</sub>S·0.5H<sub>2</sub>O (H<sub>2</sub>pt·0.5H<sub>2</sub>O): C, 28.23; H, 4.71; N, 24.71; S, 18.82 %. Found: C, 28.52; H, 4.60; N, 24.58; S, 18.74 %. M. p. 216 °C. Selected IR bands (cm<sup>-1</sup>): 3414<sub>m</sub>, ν<sub>a</sub>(H<sub>2</sub>O); 3293<sub>m</sub>, 3182<sub>m</sub>, ν<sub>s</sub>(NH<sub>2</sub>/NH); 1727<sub>s</sub>, 1699<sub>vs</sub>, ν(CO) of COOH; 1614<sub>vs</sub>, ν(CN); 802<sub>m</sub>, ν(CS).

Sodium pyruvate thiosemicarbazone {[Na(Hpt)(H<sub>2</sub>O)<sub>3</sub>]·H<sub>2</sub>O}<sub>n</sub> (2)

Anal. Calc. for NaC<sub>4</sub>H<sub>8</sub>N<sub>3</sub>O<sub>3</sub>S·3H<sub>2</sub>O: C, 20.70; H, 6.03; N, 18.10 %. Found: C, 20.55; H, 5.89; N, 18.01 %. M. p. 208 °C; λ<sub>M</sub> [Scm<sup>2</sup>mol<sup>-1</sup>]: 87 (H<sub>2</sub>O), 98 (MeOH). Selected IR bands (cm<sup>-1</sup>): 3458<sub>m</sub> ν(H<sub>2</sub>O); 3366<sub>m</sub>, 3315<sub>m</sub>, 3141<sub>m</sub>, ν(NH<sub>2</sub>/NH); 1622<sub>m</sub>, ν(CN); 1571<sub>vs</sub>, ν<sub>a</sub>(CO<sub>2</sub><sup>-</sup>); 1381<sub>vs</sub>, ν<sub>s</sub>(CO<sub>2</sub><sup>-</sup>); 789<sub>m</sub>, ν(CS).

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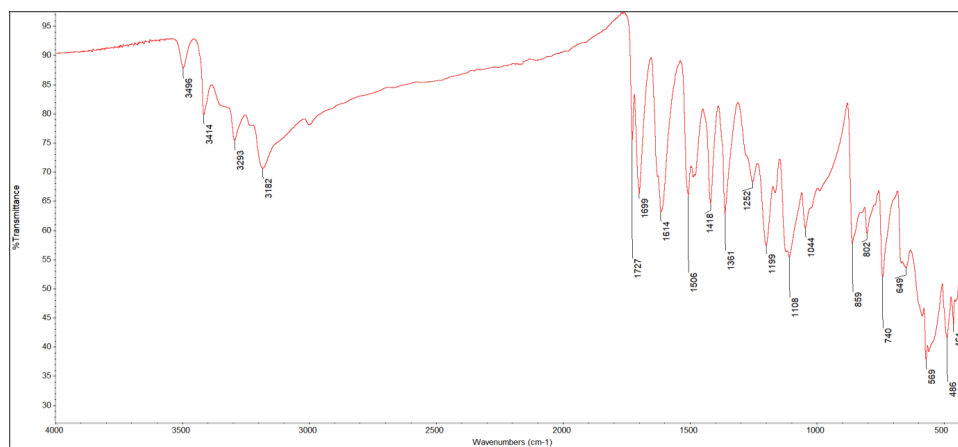


Fig. S-1. IR spectra of compound 1.

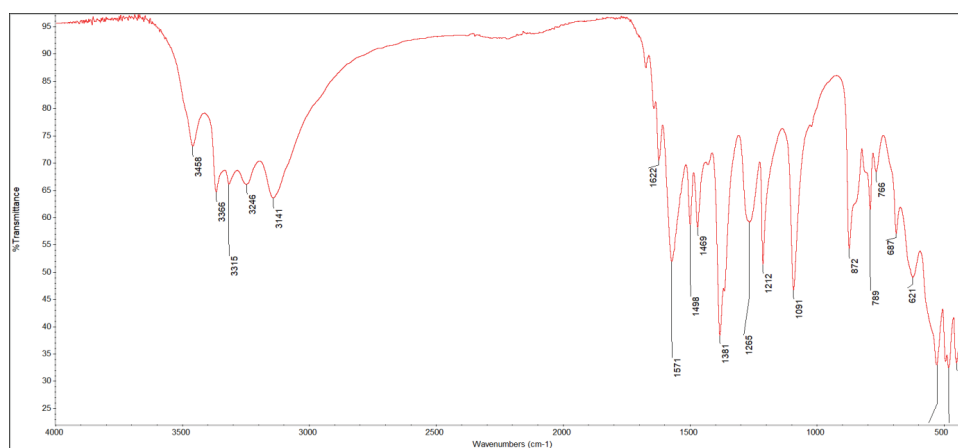


Fig. S-2. IR spectra of compound 2.

TABLE S-I. Crystallographic data

|  | 1   | 2  |
|--|---|--|
| Empirical formula  | C <sub>8</sub> H <sub>16</sub> N <sub>6</sub> O <sub>5</sub> S <sub>2</sub> | C <sub>4</sub> H <sub>14</sub> N <sub>3</sub> NaO <sub>6</sub> S |
| Formula weight   | 340.39  | 255.23   |
| Temperature (K)  | 293(2)  | 293(2)   |
| Wavelength (Å)   | 0.71073   | 0.71073  |
| Crystal system   | Triclinic   | Triclinic  |
| Space group  | <i>P</i> <b>1</b>   | <i>P</i> <b>1</b>  |
| Unit cell dimensions   |   |  |
| <i>a</i> (Å)   | 7.3991(6)   | 5.2792(5)  |
| <i>b</i> (Å)   | 8.8745(5)   | 8.5201(7)  |
| <i>c</i> (Å)   | 12.2109(7)  | 13.1342(10)  |
| $\alpha$ (°)   | 75.274(5)   | 86.131(6)  |
| $\beta$ (°)  | 79.180(6)   | 87.338(7)  |
| $\gamma$ (°)   | 82.915(6)   | 74.253(8)  |
| <i>V</i> (Å <sup>3</sup> )   | 759.27(9)   | 567.06(9)  |
| <i>Z</i>   | 2   | 2  |
| <i>D</i> <sub>calc</sub> (Mg/m <sup>3</sup> )  | 1.489   | 1.495  |
| $\mu$ (mm <sup>-1</sup> )  | 0.381   | 0.337  |
| $\theta$ range for data collection (°)   | 2.6–29.1  | 2.5–29.1   |
| Reflections collected  | 13178   | 4043   |
| Independent reflections, <i>R</i> <sub>int</sub>   | 3584, 0.0215  | 2557, 0.0162   |
| Data / restraints/parameters   | 3584/10/225   | 2557/0/181   |
| Goodness-of-fit  | 1.028   | 1.040  |
| Final <i>R</i> <sub>1</sub> / <i>wR</i> <sub>2</sub> indices [ <i>I</i> > 2 $\sigma$ ( <i>I</i> )] | 0.035/0.089   | 0.034/0.083  |
| Final <i>R</i> <sub>1</sub> / <i>wR</i> <sub>2</sub> indices (all data)                            | 0.046/0.096   | 0.044/0.089  |
| Largest diff. peak and hole (e Å <sup>-3</sup> )   | 0.27/–0.24  | 0.22/–0.23   |