

Drug-drug co-crystals. Temperature-dependent proton mobility in the molecular complex of isoniazid with 4-aminosalicylic acid

Pawel Grobelny,[†] Arijit Mukherjee and Gautam R. Desiraju^{*}

Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, India

Fax: +91 80 23602306; Tel: +91 80 22933311; E-mail: desiraju@sscu.iisc.ernet.in

[†]On leave from the Department of Pharmaceutical Technology, Poznan University of Medical Sciences, Grunwaldzka 6, 60-780 Poznan, Poland. Fax: +48 61 8546666; Tel: +48 61 8546655

Electronic Supplementary Information

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Fig. S1 Thermal ellipsoid diagram of co-crystal **1**

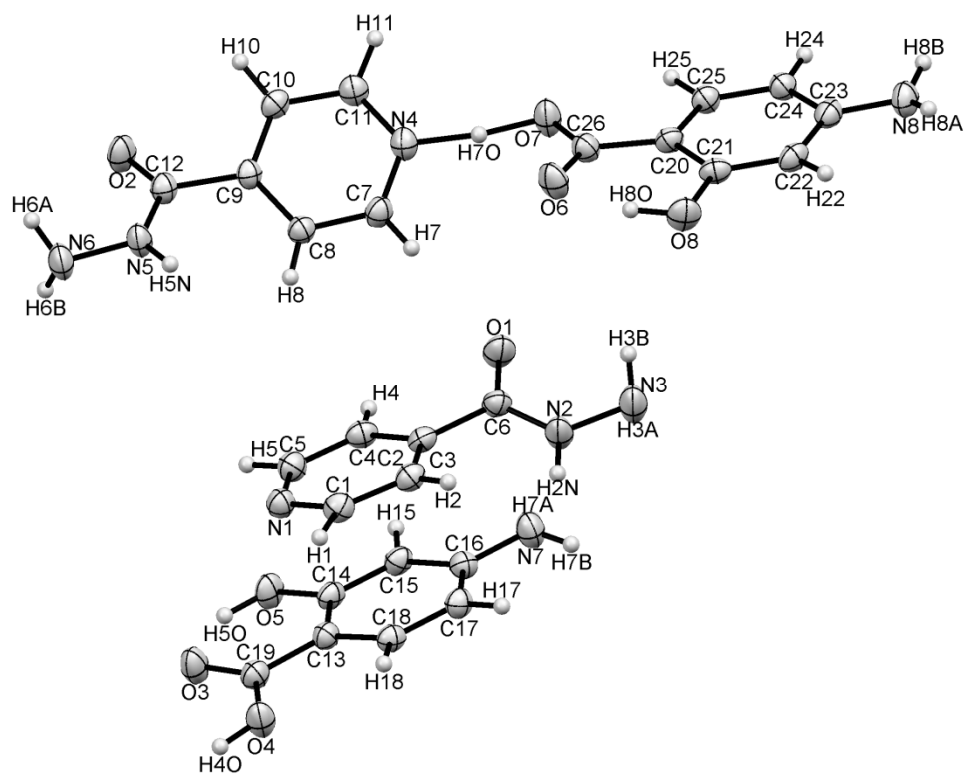


Fig. S2 Thermal ellipsoid diagram of crystal 2

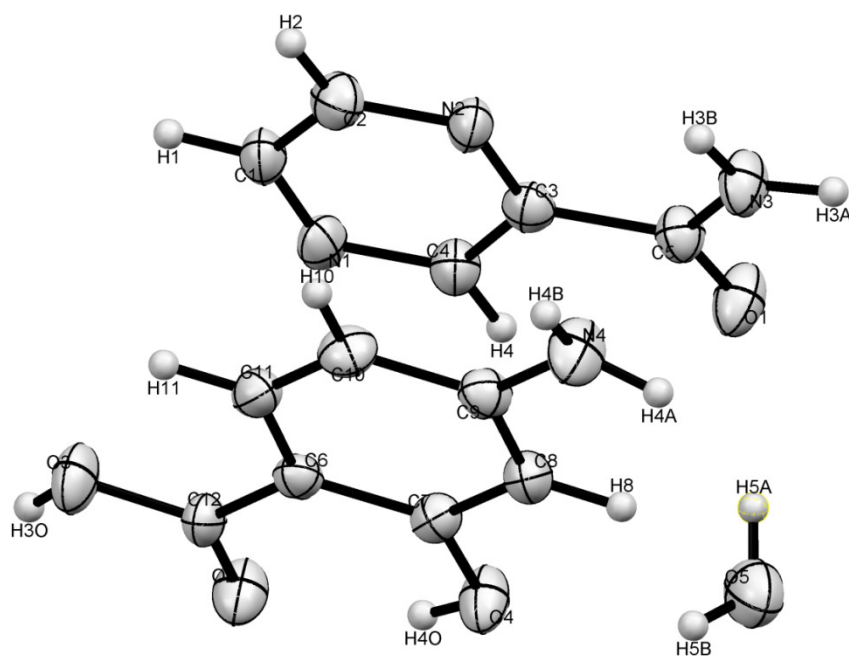


Table S1. Crystallographic information of co-crystals and their monocrystals

| | 100 K | 120 K | 140 K | 160 K | 180 K | 200 K | 220 K | 240 K | 260 K | 280 K |
|---|---|---|---|---|---|---|---|---|---|---|
| Formula | C ₂₆ H ₂₈ N ₈ O ₈ | C ₂₆ H ₂₈ N ₈ O ₈ | C ₂₆ H ₂₈ N ₈ O ₈ | C ₂₆ H ₂₈ N ₈ O ₈ | C ₂₆ H ₂₈ N ₈ O ₈ | C ₂₆ H ₂₈ N ₈ O ₈ | C ₁₃ H ₁₄ N ₄ O ₄ | C ₁₃ H ₁₄ N ₄ O ₄ | C ₁₃ H ₁₄ N ₄ O ₄ | C ₁₃ H ₁₄ N ₄ O ₄ |
| Molecularweight | 580.56 | 580.56 | 580.56 | 580.56 | 580.56 | 580.56 | 290.28 | 290.28 | 290.28 | 290.28 |
| Crystal system | Orthorhombic | | | | | | | | | |
| Space group | <i>Pna2₁</i> | | | | | | | | | |
| a (Å) | 21.837(2) | 21.845(2) | 21.859(2) | 21.879(9) | 21.889(2) | 21.893(10) | 21.893(2) | 21.926(10) | 21.969(2) | 21.942(2) |
| b (Å) | 16.5073(14) | 16.5081(13) | 16.5084(14) | 16.520(7) | 16.5223(14) | 16.515(7) | 16.5073(18) | 16.514(8) | 16.485(2) | 16.515(2) |
| c (Å) | 7.2252(6) | 7.2355(6) | 7.2459(6) | 7.263(3) | 7.2750(6) | 7.283(3) | 7.2990(7) | 7.310(3) | 7.3209(9) | 7.3435(8) |
| α (°) | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| β (°) | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| γ (°) | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Volume (Å ³) | 2604.5(4) | 2609.3(4) | 2614.7(4) | 2625.2(19) | 2631.1(4) | 2633(2) | 2637.8(5) | 2647(2) | 2651.3(5) | 2661.1(5) |
| Z | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 |
| ρ _{calc} (g/cm ³) | 1.481 | 1.478 | 1.475 | 1.469 | 1.466 | 1.465 | 1.462 | 1.457 | 1.454 | 1.449 |
| F(000) | 1216 | 1216 | 1216 | 1216 | 1216 | 1216 | 1216 | 1216 | 1216 | 1216 |
| μ (MoK _α) (mm ⁻¹) | 0.113 | 0.112 | 0.112 | 0.112 | 0.111 | 0.111 | 0.111 | 0.111 | 0.111 | 0.110 |
| Crystal size (mm) | 0.40 x 0.30 x 0.15 | | | | | | | | | |
| Temp. (K) | 100(2) | 120(2) | 140(2) | 160(2) | 180(2) | 200(2) | 220(2) | 240(2) | 260(2) | 280(2) |
| θ Range for data collection (°) | 1.5 - 27.5 | 1.5 - 27.5 | 1.5 - 27.5 | 1.5 - 27.4 | 1.5 - 27.5 | 1.5 - 27.5 | 1.5 - 27.5 | 1.5 - 27.5 | 1.5 - 27.5 | 1.5 - 27.5 |
| R ₁ | 0.0358 | 0.0359 | 0.0384 | 0.0386 | 0.0391 | 0.0415 | 0.0408 | 0.0440 | 0.0439 | 0.0471 |
| wR ₂ | 0.1101 | 0.0948 | 0.1144 | 0.1169 | 0.1172 | 0.1243 | 0.1238 | 0.1305 | 0.1305 | 0.1393 |
| Goodness-of-fit | 1.14 | 1.09 | 1.14 | 1.17 | 1.14 | 1.16 | 1.16 | 1.16 | 1.16 | 1.18 |
| Reflns collected | 27056 | 26990 | 27058 | 21255 | 27155 | 27060 | 27057 | 27304 | 27415 | 27333 |
| Unique reflns | 3226 | 3233 | 3240 | 3245 | 3254 | 3253 | 3269 | 3277 | 3286 | 3298 |
| observed reflns | 3097 | 3098 | 3116 | 3040 | 3056 | 3065 | 3017 | 3060 | 2989 | 2992 |
| CCDC no. | 800230 | 800231 | 800232 | 800233 | 800234 | 800235 | 800236 | 800237 | 800238 | 800239 |

