



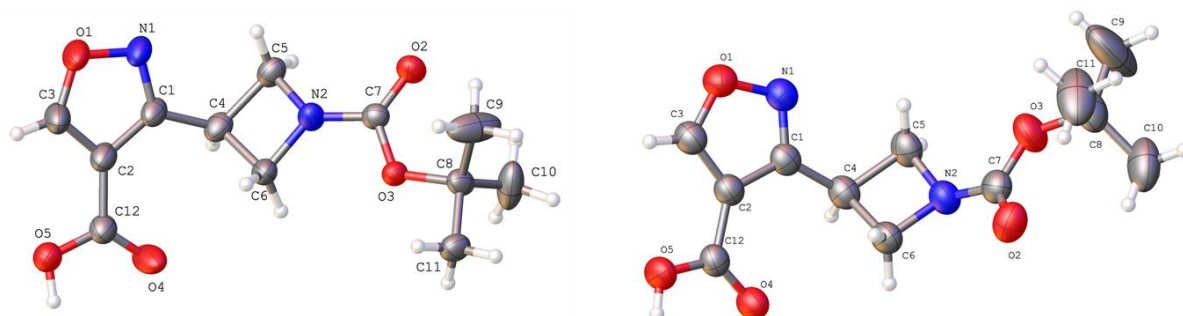
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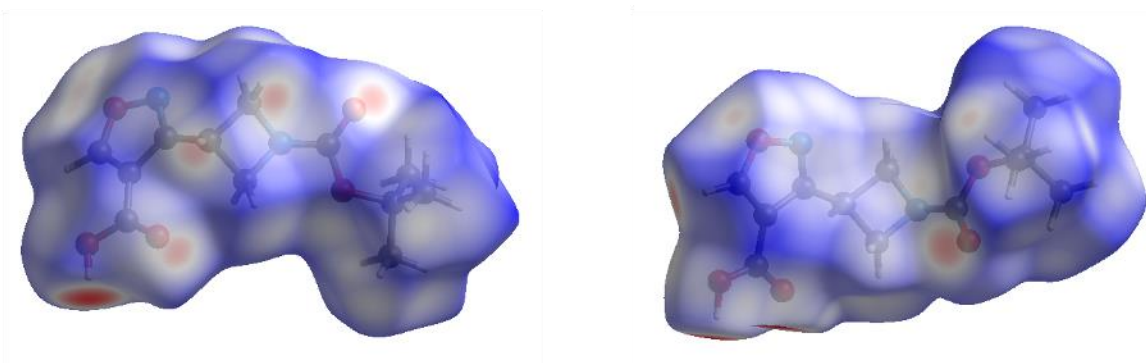
**Supporting information for article:**

**Polymorphic transition due to grinding: the case of 3-(1-(t-butoxy-carbonyl)azetidin-3-yl)-1,2-oxazole-4-carboxylic acid**

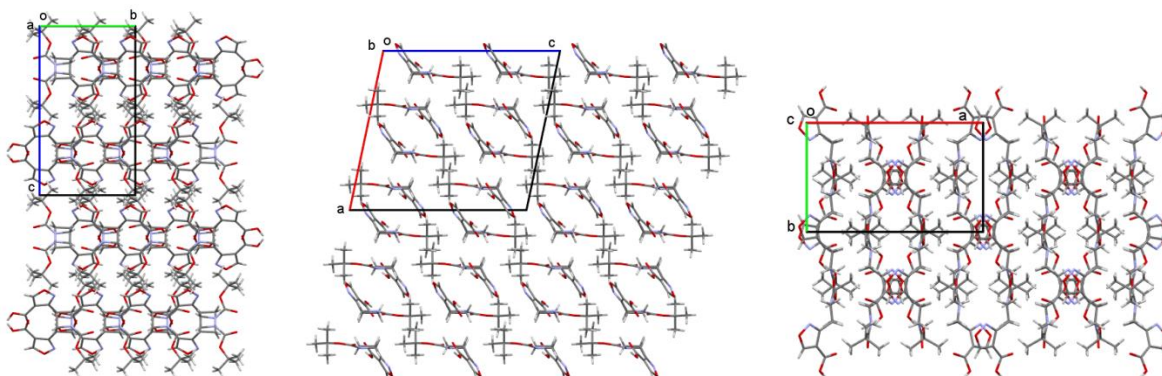
**Irina S. Konovalova, Anna M. Shaposhnyk, Vyacheslav N. Baumer, Bohdan A. Chalyk and Svitlana V. Shishkina**



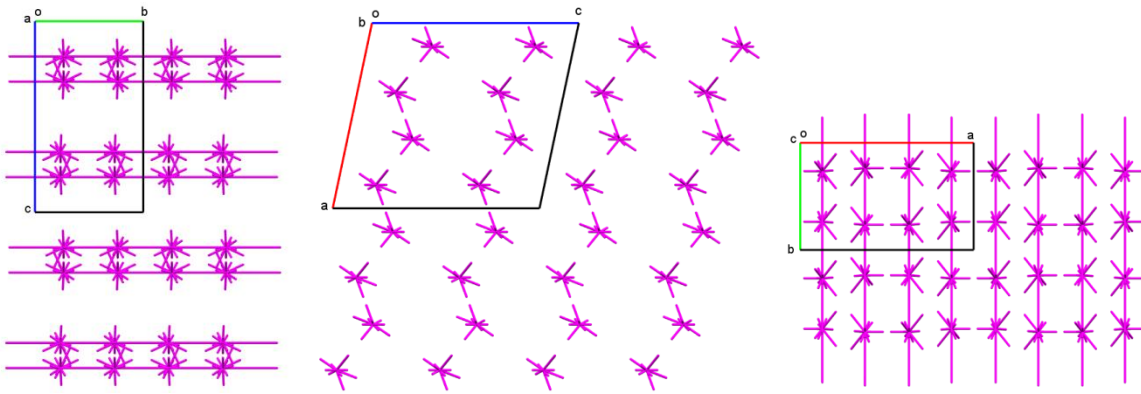
**Figure S1** Figure S1 Molecular structure of compound 1 in polymorphic structure **1a** (on the left) and **1b** (on the right).



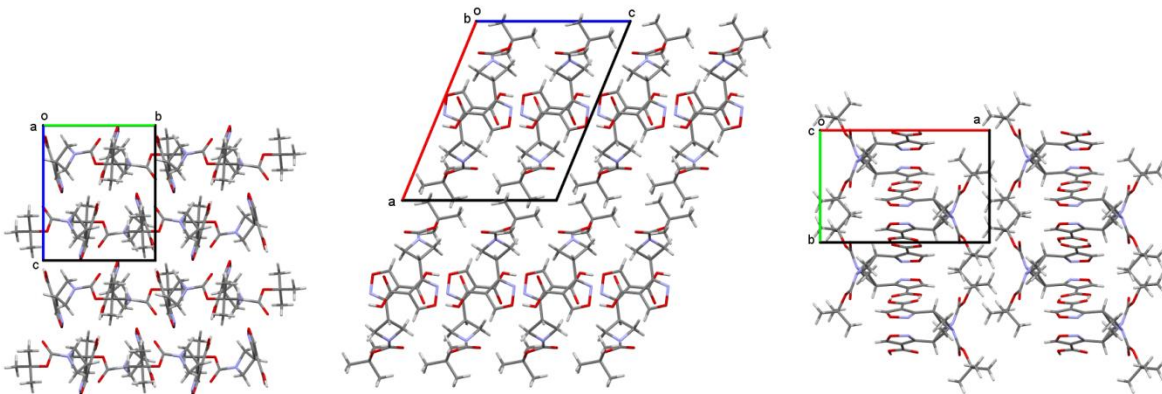
**Figure S2** Figure S2 Hirshfeld surfaces with mapped  $d_{norm}$  property projected and transparency to show the conformation of the molecules found in structure **1a** (on the left) and **1b** (on the right).



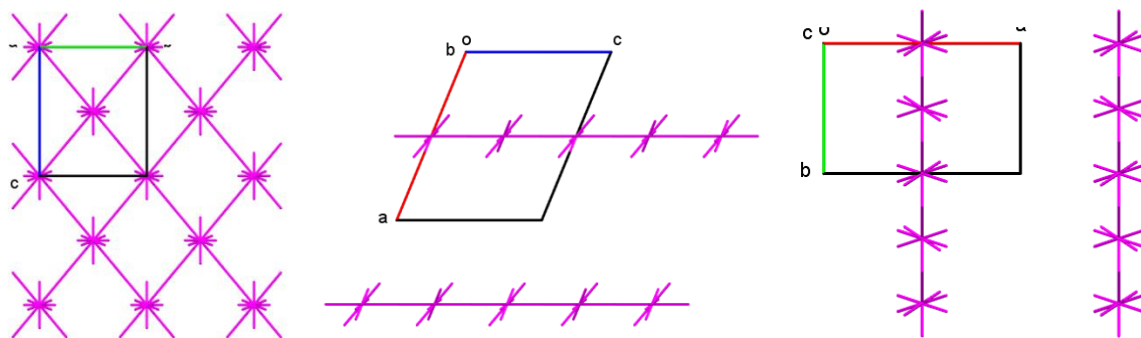
**Figure S3** Figure S3 Molecules packing in structure **1a**.



**Figure S4** Figure S4 Packing of energy-vector diagrams in structure **1a**.



**Figure S5** Figure S5 Molecules packing in structure **1b**.



**Figure S6** Figure S6 Packing of energy-vector diagrams in structure **1b**.

**Table S1** Table S1 Symmetry codes, interaction energy of the basic molecule with neighbouring ones ( $E_{\text{int}}$ , kcal/mol), the contribution of this energy to the total interaction energy (%) and bonding type in crystals **1a** (building unit is a molecule).

| Dimer         | Symmetry operation                | $E_{\text{int}}$ , kcal/mol | Contribution to the total interaction energy, % | Interaction type |
|---------------|-----------------------------------|-----------------------------|---|------------------|
| <b>1a_m1</b>  | $x, 1+y, z$                       | -10.99                      | 15.2  | O-H...O          |
| <b>1a_m2</b>  | $x, -1+y, z$                      | -10.99                      | 15.2  | O-H...O          |
| <b>1a_m3</b>  | $-x, y, 1/2-z$                    | -8.97                       | 12.4  | C-H...N(lp)      |
| <b>1a_m4</b>  | $1/2-x, 1/2+y, 1/2-z$             | -6.98                       | 9.7   | C-H...O          |
| <b>1a_m5</b>  | $1/2-x, -1/2+y, 1/2-z$            | -6.98                       | 9.7   | C-H...O          |
| <b>1a_m6</b>  | $1/2-x, 1/2-y, 1-z$               | -5.26                       | 7.3   | non-specific     |
| <b>1a_m7</b>  | $-x, -y, -z$                      | -3.57                       | 5.0   | non-specific     |
| <b>1a_m8</b>  | $x, 1-y, 1/2+z$                   | -2.25                       | 3.1   | non-specific     |
| <b>1a_m9</b>  | $x, 1-y, -1/2+z$                  | -2.25                       | 3.1   | non-specific     |
| <b>1a_m10</b> | $1/2-x, 3/2-y, 1-z$               | -2.06                       | 2.9   | non-specific     |
| <b>1a_m11</b> | $-x, 1+y, 1/2-z$                  | -2.01                       | 2.8   | non-specific     |
| <b>1a_m12</b> | $-x, -1+y, 1/2-z$                 | -2.01                       | 2.8   | non-specific     |
| <b>1a_m13</b> | $-x, 1-y, 1-z$                    | -1.88                       | 2.6   | non-specific     |
| <b>1a_m14</b> | $x, -y, 1/2+z$                    | -1.69                       | 2.3   | non-specific     |
| <b>1a_m15</b> | $x, -y, -1/2+z$                   | -1.69                       | 2.3   | non-specific     |
| <b>1a_m16</b> | $1/2+x, 1/2-y, 1/2+z$             | -1.29                       | 1.8   | non-specific     |
| <b>1a_m17</b> | $-1/2+x, 1/2-y, -1/2+z$           | -1.29                       | 1.8   | non-specific     |
|               | Total $E_{\text{int}}$ , kcal/mol | -72.17                      |   |                  |

**Table S2** Table S2 Symmetry codes, interaction energy of the basic molecule with neighbouring ones ( $E_{\text{int}}$ , kcal/mol), the contribution of this energy to the total interaction energy (%) and bonding type in crystals **1b** (building unit is a molecule).

| Dimer         | Symmetry operation                | $E_{\text{int}}$ , kcal/mol | Contribution to the total interaction energy, % | Interaction type |
|---------------|-----------------------------------|-----------------------------|---|------------------|
| <b>1b_m1</b>  | 1-x,-y,-z                         | -21.14                      | 27.5  | O–H...O          |
| <b>1b_m2</b>  | 1-x,1/2+y,1/2-z                   | -8.78                       | 11.4  | C–H...O          |
| <b>1b_m3</b>  | 1-x,-1/2+y,1/2-z                  | -8.78                       | 11.4  | C–H...O          |
| <b>1b_m4</b>  | x,1/2-y,1/2+z                     | -6.59                       | 8.6   | non-specific     |
| <b>1b_m5</b>  | x,1/2-y,-1/2+z                    | -6.59                       | 8.6   | non-specific     |
| <b>1b_m6</b>  | 1-x,-y,1-z                        | -5.16                       | 6.7   | non-specific     |
| <b>1b_m7</b>  | -x,1/2+y,1/2-z                    | -3.77                       | 4.9   | non-specific     |
| <b>1b_m8</b>  | -x,-1/2+y,1/2-z                   | -3.77                       | 4.9   | non-specific     |
| <b>1b_m9</b>  | -x,1-y,-z                         | -2.63                       | 3.4   | non-specific     |
| <b>1b_m10</b> | x,3/2-y,1/2+z                     | -2.02                       | 2.6   | non-specific     |
| <b>1b_m11</b> | x,3/2-y,-1/2+z                    | -2.02                       | 2.6   | non-specific     |
| <b>1b_m12</b> | 1-x,1-y,1-z                       | -1.64                       | 2.1   | non-specific     |
| <b>1b_m13</b> | x,1+y,z                           | -1.59                       | 2.1   | non-specific     |
| <b>1b_m14</b> | x,-1+y,z                          | -1.59                       | 2.1   | non-specific     |
| <b>1b_m15</b> | -x,1-y,1-z                        | -0.88                       | 1.1   | non-specific     |
|               | Total $E_{\text{int}}$ , kcal/mol | -76.96                      |   |                  |

**Table S3** Table S3 Symmetry codes, interaction energy of the basic molecule with neighbouring ones ( $E_{\text{int}}$ , kcal/mol), the contribution of this energy to the total interaction energy (%) and bonding type in crystals **1b** (building unit is a centrosymmetric dimer).

| Dimer         | Symmetry operation                | $E_{\text{int}}$ , kcal/mol | Contribution to the total interaction energy, % | Interaction type |
|---------------|-----------------------------------|-----------------------------|---|------------------|
| <b>1b_d1</b>  | 1-x,1/2+y,1/2-z                   | -15.40                      | 13.3  | C-H...O          |
| <b>1b_d2</b>  | 1-x,1/2+y,-1/2-z                  | -15.40                      | 13.3  | C-H...O          |
| <b>1b_d3</b>  | 1-x,-1/2+y,1/2-z                  | -15.40                      | 13.3  | C-H...O          |
| <b>1b_d4</b>  | 1-x,-1/2+y,-1/2-z                 | -15.40                      | 13.3  | C-H...O          |
| <b>1b_d5</b>  | x,y,1+z                           | -5.49                       | 4.7   | non-specific     |
| <b>1b_d6</b>  | x,y,-1+z                          | -5.49                       | 4.7   | non-specific     |
| <b>1b_d7</b>  | x,1+y,z                           | -4.44                       | 3.8   | non-specific     |
| <b>1b_d8</b>  | x,-1+y,z                          | -4.44                       | 3.8   | non-specific     |
| <b>1b_d9</b>  | 2-x,1/2+y,-1/2-z                  | -3.80                       | 3.3   | non-specific     |
| <b>1b_d10</b> | 2-x,-1/2+y,-1/2-z                 | -3.80                       | 3.3   | non-specific     |
| <b>1b_d11</b> | -x,1/2+y,1/2-z                    | -3.80                       | 3.3   | non-specific     |
| <b>1b_d12</b> | -x,-1/2+y,1/2-z                   | -3.80                       | 3.3   | non-specific     |
| <b>1b_d13</b> | 1+x,-1+y,z                        | -2.75                       | 2.4   | non-specific     |
| <b>1b_d14</b> | -1+x,1+y,z                        | -2.75                       | 2.4   | non-specific     |
| <b>1b_d15</b> | 1-x,3/2+y,1/2-z                   | -2.19                       | 1.9   | non-specific     |
| <b>1b_d16</b> | 1-x,3/2+y,-1/2-z                  | -2.19                       | 1.9   | non-specific     |
| <b>1b_d17</b> | 1-x,-3/2+y,1/2-z                  | -2.19                       | 1.9   | non-specific     |
| <b>1b_d18</b> | 1-x,-3/2+y,-1/2-z                 | -2.19                       | 1.9   | non-specific     |
| <b>1b_d19</b> | x,1+y,1+z                         | -1.74                       | 1.5   | non-specific     |
| <b>1b_d20</b> | x,-1+y,-1+z                       | -1.74                       | 1.5   | non-specific     |
| <b>1b_d21</b> | 1+x,-1+y,-1+z                     | -0.89                       | 0.8   | non-specific     |
| <b>1b_d22</b> | -1+x,1+y,1+z                      | -0.89                       | 0.8   | non-specific     |
|               | Total $E_{\text{int}}$ , kcal/mol | -116.16                     |   |                  |