Figure 1. Space filling model for Re(phen)(CO)$_3$Cl presenting: a. the minimum distance in which the complex can be oriented; b. top view of the molecule presenting its circular projection in the ab plane.
Scheme 1. Ideal two dimensional arrangement of Re(phen)(CO)₃Cl complexes in van der Waals contact.

1. The area of the parallelogram denoted by the red segments is \( P = (2r) \times (r\sqrt{3}) = 2r^2\sqrt{3} \).

2. The area of the circle that represent the cross sectional area of Re(phen)(CO)₃Cl in the ZrP plane is \( \text{Re(phen)(CO)}_3\text{Cl} = \pi r^2 \).

3. The percent of area occupied by Re(phen)(CO)₃Cl in the parallelogram:
   \[
   \text{Re(phen)(CO)}_3\text{Cl \%} = \frac{\pi r^2}{2r^2\sqrt{3}} \times 100 = 90.7\%
   \]

4. Being \( r = 5.6 \) Å and the cross sectional area of a ZrP formula unit = 24 Å², then the amount of Re(phen)(CO)₃Cl per ZrP is 0.221.