

## Supplementary material:

**Table 1:** The number of interactions based on angle and distance between all possible types of aromatic pairs. The aromatic pair with the most number of interactions is highlighted.

Aromatic amino acid pairs	Number of Interactions (based on angle)(°)	Number of Interactions (based on distance)(Å)
PHE:PHE	15055	28495
PHE:TYR	18762	35303
PHE:TRP	9217	17360
TYR:TYR	7217	13420
TYR:TRP	6731	12693
TRP:TRP	1931	3679
PHE:HIS	7660	15073
PHE:IND	7740	14582
TRP:IND	3358	6261
TYR:HIS	6304	12286
TYR:IND	5808	10993
HIS:HIS	5008	9649
HIS:IND	2806	5469
IND:IND	1459	2718
TRP:HIS	2791	4256

**Table 2:** Number of interactions between the aromatic residues. The distance interval in which maximum numbers of interactions occur is highlighted.

Distance Intervals (Å)	Val Number of Interactions
<=5	19882
5-5.5	32215
5.5-6	36557
6-6.5	37018
6.5-7	34336
7-7.5	33471

**Table 3:** Number of specific and non-specific interactions. The distance interval in which maximum number of specific and non-specific interactions occurs is highlighted.

Distance (Å)	Specific	Non-Specific
<=5	20	19
5-5.5	23	22
5.5-6	34	23
6-6.5	48	35
6.5-7	68	44
7-7.5	49	49