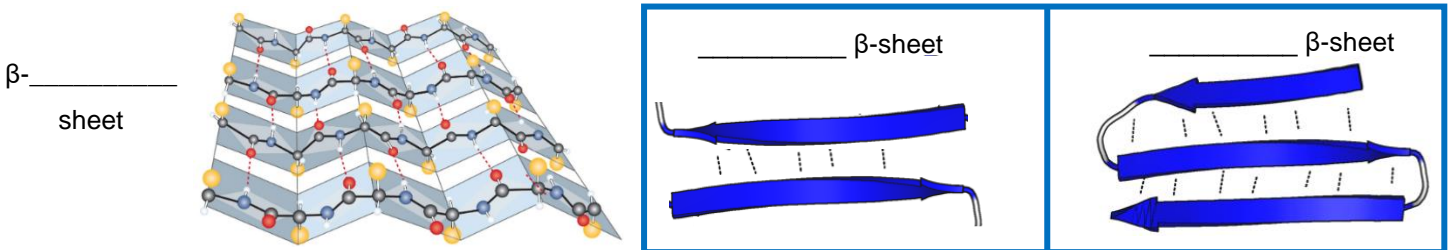


CONCEPT: BETA SHEET

- **β-sheets**: consist of ____ or more β-strands arranged side-by-side.
 - Also known as β-_____ sheets because of their zig zag structure.
 - R-groups are _____ to the β-sheets.
- Unlike α-helices, H-bonded β-sheets can form between *separate* protein chains (_____) or the *same* chain (_____).
- β-sheets typically only have 2 — 5 β strands but can have up to ____ or more β-strands.

EXAMPLE: Interchain vs. Intrachain β pleated sheets.



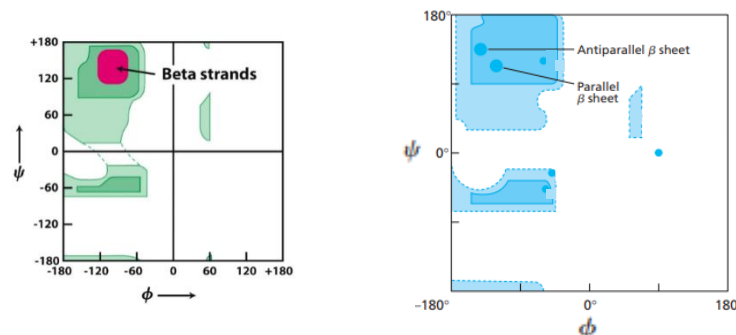
PRACTICE: Which of the following is true about interchain β-sheets?

- Only have two β-strands.
- Backbone H-bonding between same chain β-strands.
- Backbone H-bonding between separate chain β-strands.
- R-group H-bonding between separate chain β-strands.

Beta Sheet Bond Angles

- β-sheet ϕ and ψ angles are found in the _____-left of the Ramachandran plot.

EXAMPLE:



PRACTICE: Which set of ϕ and ψ bond angles is best for β-sheet secondary structure?

- + Phi (ϕ) angles & - Psi (ψ) angles.
- Phi (ϕ) angles & + Psi (ψ) angles.
- + Phi (ϕ) angles & + Psi (ψ) angles.
- Phi (ϕ) angles & - Psi (ψ) angles.