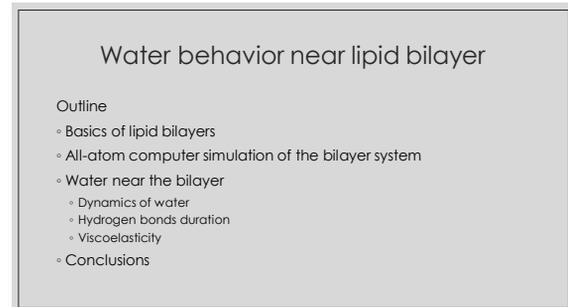
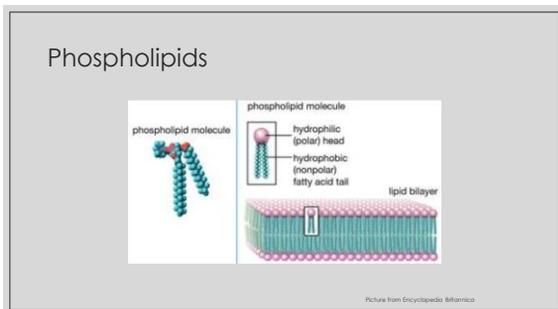


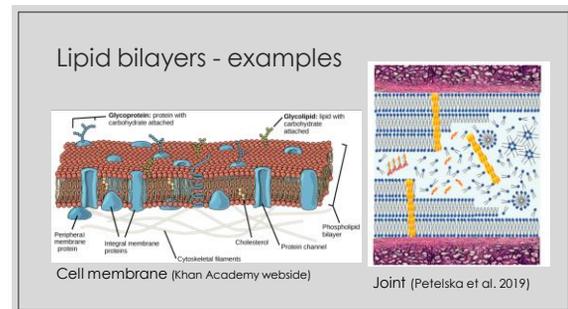
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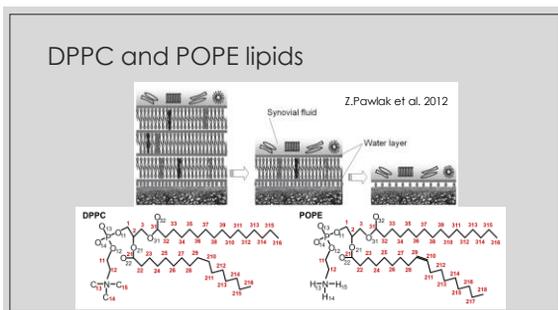
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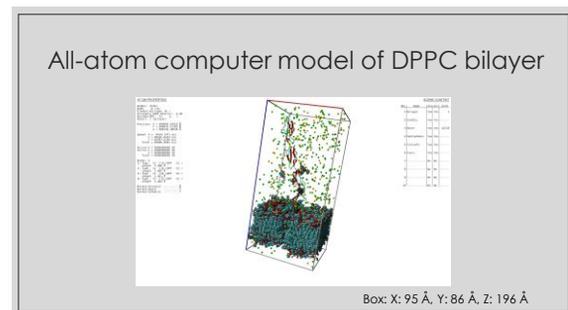
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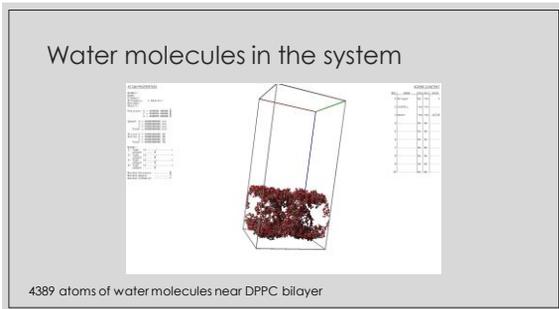
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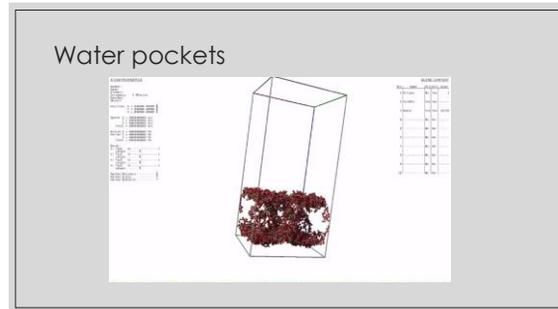
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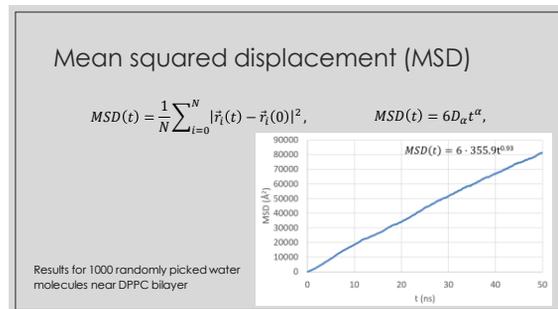
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Water behavior near bilayer

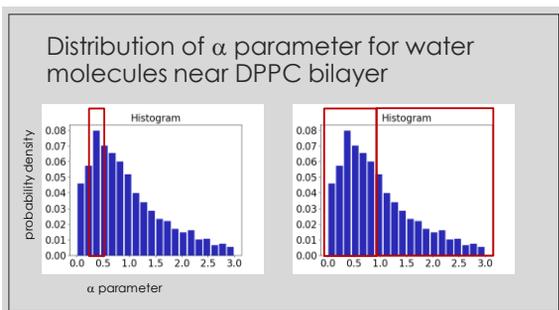
The water:

- can diffuse through the membrane,
- can be trapped inside the bilayer creating e.g water bridges,
- can diffuse on the surface of the layers,
- can break away and diffuse freely in the solution.

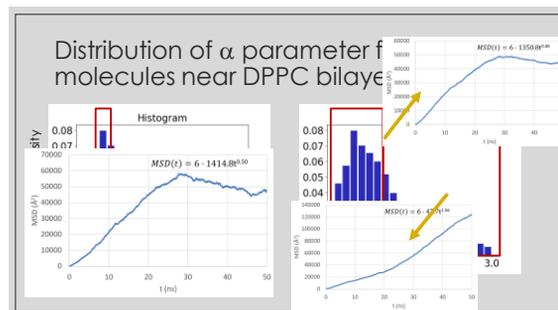
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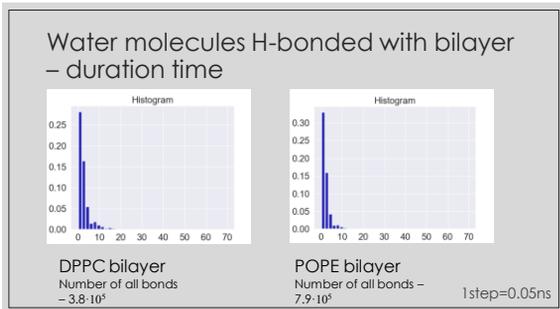
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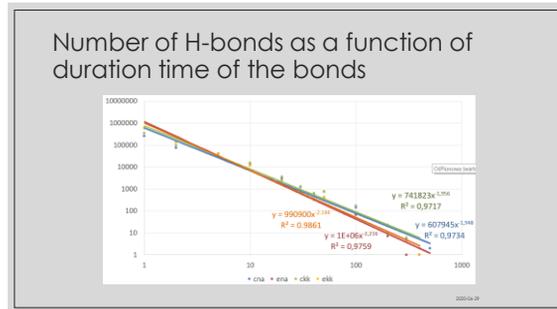
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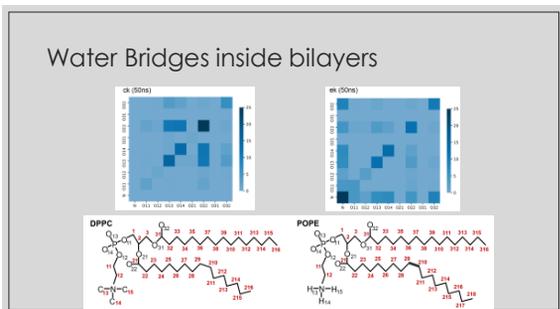
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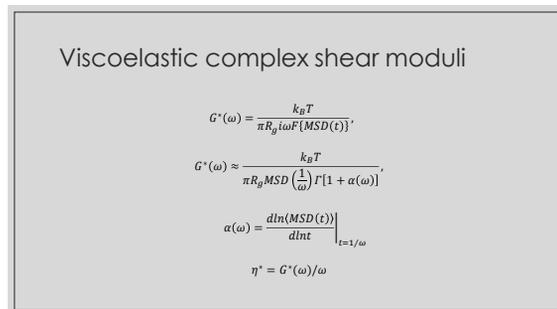
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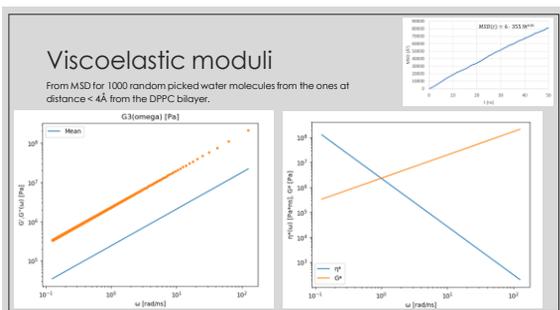
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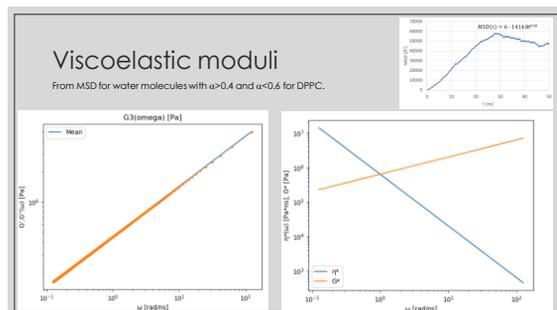
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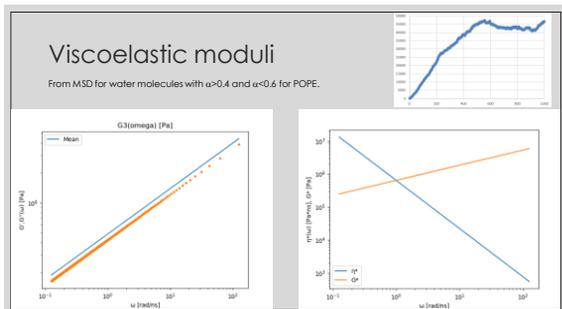
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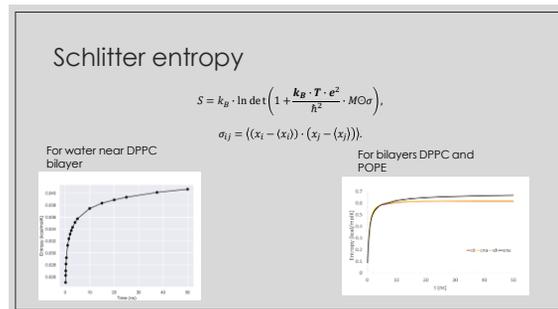
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21

Conclusions

Water molecules trapped inside a bilayer change its properties.

We were searching for the water molecules which make subdiffusional moves, so trapped by the bilayer, and we compute the viscoelastic moduli of the system.

Knowing that motions of water inside water pockets inside bilayer require hydrogen bond network breakdown and rearrangement we analyzed the number of such bonds and their duration time.

An investigation is needed to check how many water molecules can diffuse through the membrane.

2020-06-29

23

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24