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Nanomechanics of individual structures in endothelial cells studied by multiparameter AFM-based experimental methods

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WARNING – IT IS A DRAFT

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PhD dissertation supervised by prof. dr. hab. Marek Szymoński

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Introduction

- 1. Physiological relevance of endothelial cells nanomechanics
- 2. Cellular structures determining mechanical properties of cells

Part II

Theoretical description of cell nanoinentation with an AFM probe

- 1. Working principle
- 2. Modeling the interaction
- 2.1. Electrostatic
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Part III

Identifying individual cellular structures

- 1. Cortical actin cytoskeleton
- 2. Endothelial glycocalyx

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- 1. Methodology
- 2. Model
- 3. Results and discussion

Part VI

Cell-cell interaction

- 1. Methodology
- 2. Model
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Part VII

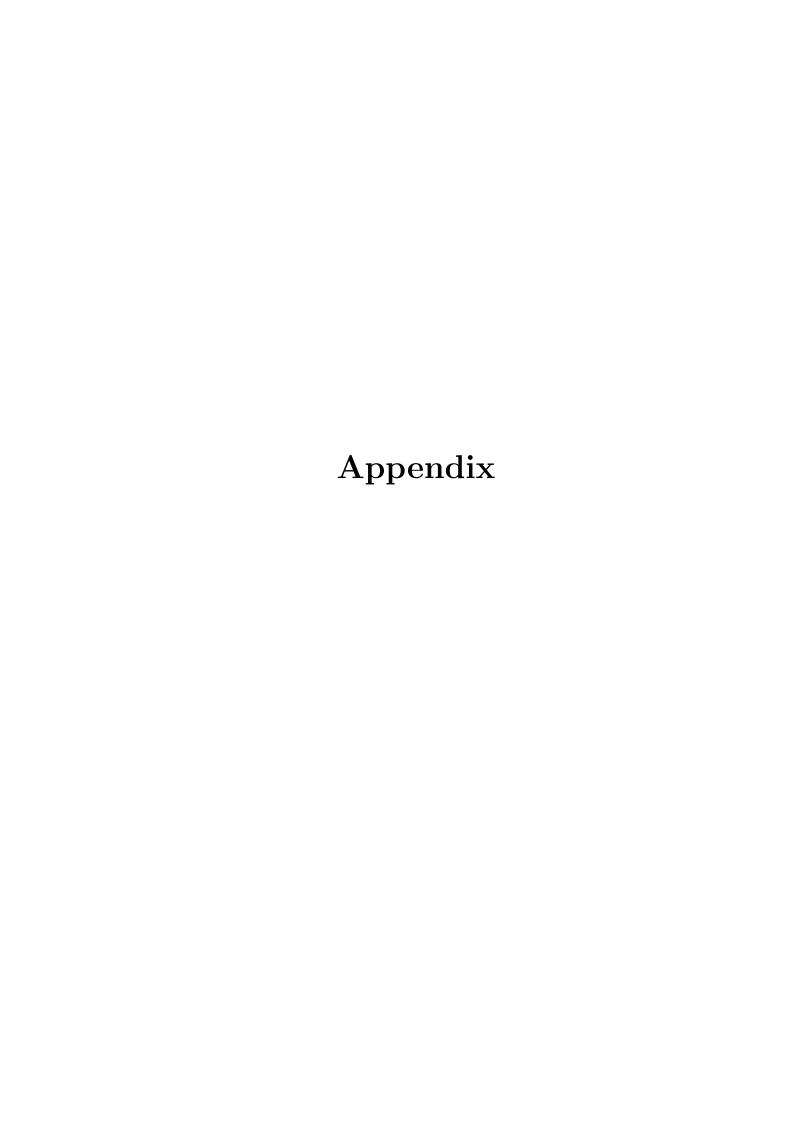
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References

[1] Stanisława Stokłosowa. Hodowla~kom'orek~i~tkanek. Wydawnictwo Naukowe PWN, Warszawa, 2004.

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- A. Something additional
- B. And even less important