

Contents

Chapter 1. Introduction	1
Acknowledgment	9
Chapter 2. Notations and preliminaries	11
2.1. Notations	11
2.2. Musielak-Orlicz and Musielak-Orlicz-Sobolev spaces	16
Chapter 3. Absence of Lavrentiev phenomenon	19
Chapter 4. Sobolev-Poincaré type inequalities	23
Chapter 5. Basic regularity results	29
5.1. Local boundedness	29
5.2. Almost standard Caccioppoli inequality	34
5.3. Hölder continuity	39
5.4. The Harnack inequality	43
5.5. Higher integrability results	51
Chapter 6. Harmonic type approximation	53
Chapter 7. Comparison estimates	63
Chapter 8. Proof of Theorem 1.2	83
Chapter 9. Proof of Theorem 1.1	93
Chapter 10. Orlicz double phase problems	97
Chapter 11. Regularity results under additional integrability	119
Bibliography	127