Contents

		pag
Introduction		vii
Notations		viii
Elementary results		1
1.	Baer's Theorem	3
2.	A theorem of Blackburn	5
3.	A theorem of Bender	7
4.	The Transitivity Theorem	10
5.	The Uniqueness Theorem	12
6.	The case $ \pi(\mathbf{F}(\mathbf{H})) = 1$	18
7.	The proof of the Uniqueness Theorem 5.1	20
8.	The Burnside $p^a q^b$ -Theorem, p, q odd	30
9.	Matsuyama's proof of the $p^a q^b$ -Theorem, $p = 2$	31
10.	A generalization of the Fitting subgroup	34
11.	Groups with abelian Sylow 2-subgroups	38
12.	Preliminary lemmas	40
13.	Properties of A*-groups	47
14.	Proof of the Theorem A, Part I	53
15.	Proof of the Theorem A, Part II	67
Appendix: p-constraint and p-stability		80
References		85