

# CONTENTS

1. INTRODUCTION.....	6
2. METHODS OF GRATING ANALYSIS.....	9
2.1. Rigorous coupled wave analysis .....	10
2.2. Coordinate transformation method.....	11
2.3. Effective medium theory .....	12
3. MODELING OF DIFFRACTION CHARACTERISTICS .....	13
4. EXAMPLES OF GRATING ANALYSIS APPLICATIONS .....	14
4.1. Modeling of resonant effects in gratings.....	14
4.2. Modeling of high spatial frequency gratings .....	15
4.3. Other examples of modeling activities.....	16
5. CONCLUSIONS .....	17
ACKNOWLEDGEMENT .....	18
REFERENCES .....	18
CURRICULUM VITAE – ING. IVAN RICHTER, DR. ....	21