1. Record Nr. UNINA9910958583603321

| | |
|---|---|
| Autore | Yang Xiaoyi |
| Titolo | Potential of activated sludge utilization / / Xiaoyi Yang |
| Pubbl/distr/stampa | New York, : Nova Science Publishers, c2010 |
| ISBN | 1-61728-777-6 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (64 p.) |
| Collana | Environmental science, engineering and technology series |
| Disciplina | 628.3/54 |
| Soggetti | Digester gas<br>Gas as fuel<br>Sewage sludge fuel<br>Sewage - Purification - Anaerobic treatment |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Intro -- POTENTIAL OF ACTIVATEDSLUDGE UTILIZATION -- POTENTIAL OF ACTIVATED SLUDGE UTILIZATION -- CONTENTS -- PREFACE -- 1. INTRODUCTION -- 1.1. DISPOSAL REQUIREMENTS -- 1.2. RECENT SLUDGE DISPOSAL -- 1.3. PROGRESS IN THE RESEARCH OF MUNICIPAL WASTESLUDGE MANAGEMENT -- 1.3.1. Rational Application and Science Strategy -- Perfecting and Executing Standard of Pollutants Control -- Removal Heavy Metals -- 1.3.2. Reducing Sludge Output -- REFERENCES -- 2. POTENTIAL OF ANAEROBICSLUDGE DIGESTION -- 2.1. EFFECTS OF SLUDGE CHARACTERISTICS ON ANAEROBICDIGESTION -- 2.1.1. Nutrient Contents -- 2.1.2. Inhibition Contents -- 1. Heavy Metals -- 2. Sulphide -- 2.2. PRETREATMENT FOR ENHANCED ANAEROBICDIGESTION -- 2.2.1. Mechanical Pretreatment -- 2.2.2. Chemical Pretreatment -- 2.2.3. Thermal Pretreatment -- 2.2.4. Ultrasound Pretreatment -- 2.2.5. Advanced Oxidation Pretreatment -- 2.3. THERMAL PRETREATMENT KINETICS -- 2.3.1. Kinetic Model -- 2.3.2. The Two-stage First-order Reaction Kinetic Model -- 2.3.3. Generalized Kinetic Model -- 2.4. ENERGY OUTPUT POTENTIAL -- ABBREVIATIONS -- REFERENCES -- 3. POTENTIAL OF SLUDGE PYROLYSIS -- 3.1. PRINCIPLES -- 3.2. AFFECTING PARAMETERS -- 3.2.1. Temperature -- 3.2.2. Gas Residence Time -- 3.2.3. Heating Rate and Feed Size -- 3.2.4. Sludge Type -- 3.3. PYROLYSIS PRODUCTS -- 3.3.1. |

| | |
|---|---|
| | Oil -- 3.3.2. Char -- 3.3.3. Non-condensable Gas -- 3.4. PRETREATMENT FOR SLUDGE PYROLYSIS -- 3.4.1. Acid and Base Pre-treatment -- 3.4.2. Catalyst -- 3.5. SLUDGE PYROLYSIS KINETICS -- 3.5.1. Overview -- 3.5.2. Thermal Decomposition Behavior of Sewage Sludge -- 3.5.3. Pyrolysis Kinetics Model -- 1. Traditional Pyrolysis Model -- 2. Lorentz Fitting-multi-heating Method Model -- REFERENCES -- INDEX. |
| Sommario/riassunto | As the lack of fossil fuel is increasing, sludge management is not only to satisfy the disposal criteria but also to obtain energy and resources. This book explains biogas outputs in waste sludge treatment. |