1. Record Nr. UNIORUON00154719

Autore	KIM Il Sung
Titolo	A l'occasion du 30e anniversaire de la fondation du Parti du travail de Coree. Rapport présenté au rassemblement (...) le 9 octobre 1975 / Kim Il Sung
Pubbl/distr/stampa	Pyongyang, : Editions en Langues Etrangères, 1975
Descrizione fisica	53 p. ; 21 cm
Classificazione	COR V
Soggetti	Corea - Storia - Sec. XX-XXI KIM IL SUNG - SCRITTI - PENSIERO
Lingua di pubblicazione	Francese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910830166603321

Autore	Coker A. Kayode
Titolo	Petroleum refining design and applications handbook . Volume 4. : heat transfer, pinch analysis, process safety incidents / / A. Kayode Coker
Pubbl/distr/stampa	Hoboken, NJ : , : Wiley, , [2023] ©2023
ISBN	1-119-82769-8 1-119-82768-X
Descrizione fisica	1 online resource (1083 pages)
Disciplina	665.53
Soggetti	Petroleum - Refining
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Companion Web Page -- Contents -- Preface -- Acknowledgments -- Chapter 21 Heat Transfer

-- 21.1 Introduction -- 21.1.1 Types of Heat Transfer Equipment Terminology -- 21.2 Details of Exchange Equipment -- Assembly and Arrangement -- Construction Codes -- Thermal Rating Standards -- Details of Stationary Heads -- Exchanger Shell Types -- 21.3 Factors Affecting Shell Selection -- 21.3.1 Details of Rear End Heads -- 21.4 Common Combinations of Shell and Tube Heat Exchangers -- AES -- BEM -- AEP -- CFU -- AKT -- AJW -- Tubes -- 21.5 Bending of Tubing -- Baffles -- Tube Side Baffles (TEMA uses Pass Partition Plates) -- 21.6 Shell-Side Baffles and Tube Supports -- Tie Rods -- Tubesheets -- Tube Joints in Tubesheets -- Seal Strips -- Example 21.1 Determine Outside Heat Transfer Area of Heat Exchanger Bundle -- Tubesheets Layouts -- 21.7 Tube Counts in Shells -- Applications of Tube Pitch Arrangements -- 21.8 Exchanger Surface Area -- Number of Tubes -- Exact Distance Between Faces of Tubesheets -- Net Effective Tube Length -- Exact Baffle Spacing -- Impingement Baffle Location -- Effective Tube Surface -- Effective Tube Length for U-Tube Heat Exchangers -- 21.9 Tube Vibration -- 21.9.1 Vibration Mechanisms -- 21.9.2 Treatment of Vibration Problems -- 21.9.3 Corrective Measures -- Example 21.2 Use of U-Tube Area Chart -- Nozzle Connections to Shell and Heads -- 21.10 Types of Heat Exchange Operations -- 21.10.1 Thermal Design -- 21.10.2 Temperature Difference: Two Fluid Transfer -- Example 21.3 One Shell Pass, Two Tubes Passes Parallel-Counterflow Exchanger Cross, After Murty -- 21.10.3 Mean Temperature Difference or Log Mean Temperature Difference -- 21.10.4 Log Mean Temperature Difference Correction Factor, F -- 21.10.5 Correction for Multipass Flow Through Heat Exchangers. Example 21.4 Performance Examination for Exit Temperature of Fluids -- Example 21.5 Calculation of Weighted MTD -- Example 21.6 Calculation of LMTD and Correction -- Example 21.7 Calculate the LMTD -- Solution -- Temperature for Fluid Properties Evaluation-Caloric Temperature -- Tube Wall Temperature -- Example 21.8 Heating of Glycerin in a Multipass Heat Exchanger -- Solution -- 21.11 The Effectiveness-NTU Method -- Example 21.9 Heating Water in a Counter Current Flow Heat Exchanger -- Solution -- Example 21.10 LMTD and -NTU Methods -- Solution -- Example 21.11 -- Solution -- 21.12 Pressure Drop, p -- 21.12.1 Frictional Pressure Drop -- 21.12.2 Factors Affecting Pressure Drop (p) -- Tube-Side Pressure Drop, pf -- Shell-Side Pressure Drop pf -- Shell Nozzle Pressure Drop (pnoz) -- Total Shell-Side Pressure Drop, ptotal -- 21.13 Heat Balance -- Heat Load or Duty -- Example 21.12 Heat Duty of a Condenser with Liquid Subcooling -- 21.14 Transfer Area -- Over Surface and Over Design -- 21.15 Fouling of Tube Surface -- 21.15.1 Crude Oil Fouling In Pre-Heat Train Exchangers -- Crude Type -- Crude Blending -- Crude Oil Fouling Models -- Tubular Exchanger Manufacturers' Association (TEMA) and Model Approach for Fouling Resistance, Rf of Crude Oil Pre-Heat Trains -- Fouling Mitigation and Monitoring -- HIS smartPM Software -- Effect of Fouling on Exchanger Heat Transfer Performance -- Example 21.13 -- Solution -- Example 21.14 -- Solution -- Prevention and Control of Liquid-Side Fouling -- Prevention and Control of Gas-Side Fouling -- UnSim Design HEX Network Digital Twin Model -- Selecting Tube Pass Arrangement -- Super Clean System Technology -- 21.16 Exchanger Design -- 21.16.1 Overall Heat Transfer Coefficients for Plain or Bare Tubes -- Example 21.15 Calculation of Overall Heat Transfer Coefficient from Individual Components.
Approximate Values for Overall Heat Transfer Coefficients -- Simplified Equations -- Film Coefficients With Fluids Outside Tubes Forced Convection -- Viscosity Correction Factor (/w)0.14 -- Heat Transfer

Coefficient for Water, hi -- Shell-Side Equivalent Tube Diameter -- Shell-Side Velocities -- Design and Rating of Heat Exchangers -- Rating of a Shell and Tube Heat Exchanger -- Design of a Heat Exchanger -- Design Procedure for Forced Convection Heat Transfer in Exchanger Design -- Design Programs for a Shell and Tube Heat Exchanger -- Example 21.16 Convection Heat Transfer Exchanger Design -- Shell and Tube Heat Exchanger Design Procedure (S.I. units) -- Tubes -- Tube Side Pass Partition Plate -- Calculations of Tube Side Heat Transfer Coefficient -- Example 21.17 Design of a Shell and Tube Heat Exchanger (S.I. units) Kern's Model -- Solution -- Modified Design -- Shell-Side Pressure Drop, ps -- Pressure Drop for Plain Tube Exchangers -- Tube Size -- Tube-Side Condensation Pressure Drop -- Shell-Side -- Unbaffled Shells -- Segmental Baffles in Shell -- Alternate: Segmental Baffles Pressure Drop -- A Case Study Using UniSim® Shell-Tube Exchanger (STE) Modeler -- Solution -- Shell and Tube Heat Exchangers: Single Phase -- Effect of Manufacturing Clearances on the Shell-Side Flow -- Bell-Delaware Method -- Ideal Shell-Side Film Heat Transfer Coefficient -- Shell-Side Film Heat Transfer Coefficient Correction Factors -- Baffle Cut and Spacing, Jc -- Baffle Leakage Effects, JL -- Bundle and Partition Bypass Effects, Jb -- Variations in Baffle Spacing, Js -- Temperature Gradient for Laminar Flow Regime, Jr -- Overall Heat Transfer Coefficient, U -- Shell-Side Pressure (p) -- Tube Pattern -- Accuracy of Correlations Between Kern's Method and the Bell-Delaware's Method -- Specification Process Data Sheet, Design, and Construction of Heat Exchangers.
Rapid Design Algorithms for Shell and Tube and Compact Heat Exchangers: Polley et al. [173] -- Fluids in the Annulus of Tube-in-Pipe or Double Pipe Heat Exchanger, Forced Convection -- Finned Tube Exchangers -- Low Finned Tubes, 16 and 19 Fins/In. -- Finned Surface Heat Transfer -- Economics of Finned Tubes -- Tubing Dimensions -- Design for Heat Transfer Coefficients by Forced Convection Using Radial Low-Fin Tubes in Heat Exchanger Bundles -- Pressure Drop in Exchanger Shells Using Bundles of Low Fin Tubes -- Tube-Side Heat Transfer and Pressure Drop -- Design Procedure for Shell-Side Condensers and Shell-Side Condensation With Gas Cooling of Condensables, Fluid-Fluid Convection Heat Exchange -- Vertical Condensation on Low Fin Tubes -- Nucleate Boiling Outside Horizontal or Vertical Tubes -- Design Procedure for Boiling, Using Experimental Data -- Double Pipe Finned Tube Heat Exchangers -- Finned Side-Heat Transfer -- Tube Wall Resistance -- Tube-Side Heat Transfer and Pressure Drop -- Fouling Factor -- Finned Side Pressure Drop -- Design Equations for The Rating of A Double Pipe Heat Exchanger -- Inner Pipe -- Annulus -- Vapor Service -- Shell-Side Bare Tube -- Shell-Side (Finned Tube) -- Tube Side Pressure Drop, pt -- Annulus -- Calculation of the Pressure Drop -- Effect of Pressure Drop (p) on the Original Design -- Nomenclature -- Example 21.19 -- Solution -- Heat Balance -- Pressure Drop Calculations -- Tube-Side p -- Shell-Side p -- Plate and Frame Heat Exchangers -- Design Charts for Plate and Frame Heat Exchangers -- Selection -- Advantages -- Disadvantages -- Example 21.20 -- Solution -- Pressure Drop Calculations -- Cooling Water Side Pressure Drop -- Air-Cooled Heat Exchangers -- Induced Draft -- Forced Draft -- General Application -- Advantages-Air-Cooled Heat Exchangers -- Disadvantages -- Bid Evaluation.
Design Consideration (Continuous Service) -- Mean Temperature Difference -- Design Procedure for Approximation -- Tube Side Fluid Temperature Control -- Rating Method for Air Cooler Exchangers -- The Equations -- The Air Side Pressure Drop, pa (in. H2O) -- Example

21.26 -- Solution -- Operations of Air Cooled Heat Exchangers -- Monitoring of Air-Cooled Heat Exchangers -- Boiling and Vaporization -- Boiling -- Vaporization -- Vaporization During Flow -- Vaporization in Horizontal Shell -- Natural Circulation -- Pool and Nucleate Boiling-General Correlation for Heat Flux and Critical Temperature Difference -- Example 21.27 -- Solution -- Reboiler Heat Balance -- Example 21.28 Reboiler Heat Duty after Kern -- Solution -- Kettle Horizontal Reboilers -- Maximum Bundle Heat Flux -- Nucleate or Alternate Designs Procedure -- Kettle Reboiler-Horizontal Shells -- Horizontal Kettle Reboiler Disengaging Space -- Kettle Horizontal Reboilers, Alternate Design -- Boiling: Nucleate Natural Circulation (Thermosyphon) Inside Vertical Tubes or Outside Horizontal Tubes -- Gilmour Method Modified -- Suggested Procedure for Vaporization with Sensible Heat Transfer -- Procedure for Horizontal Natural Circulation Thermosyphon Reboiler -- Kern Method -- Vaporization Inside Vertical Tubes -- Natural Thermosyphon Action -- Fair's Method -- Process Requirements -- Preliminary Design -- Circulation Rate -- Heat Transfer-Stepwise Method -- Circulation Rate -- Heat Transfer: Simplified Method -- Design Comments -- Example 21.29 C3 Splitter Reboiler -- Solution -- Preliminary Design -- Circulation Rate -- Heat Transfer Rate-Stepwise Method -- Heat Transfer Rate-Simplified Method -- Example 21.30 Cyclohexane Column Reboiler -- Solution -- Preliminary Design -- Circulation Rate -- Heat Transfer Rate-Simplified Method -- Kern's Method Stepwise -- Design Considerations. Other Design Methods.

3.

Record Nr.	UNINA9910367569703321
Autore	Nóbrega João Miguel
Titolo	Advances in Experimental and Computational Rheology / João Miguel Nóbrega, Maria Teresa Cidade
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019 Basel, Switzerland : , : MDPI, , 2019
ISBN	9783039213344 3039213342
Descrizione fisica	1 electronic resource (224 p.)
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Rheology, defined as the science of deformation and flow of matter, is a multidisciplinary scientific field, covering both fundamental and applied approaches. The study of rheology includes both experimental and computational methods, which are not mutually exclusive. Its practical importance embraces many processes, from daily life, like preparing mayonnaise or spread an ointment or shampooing, to industrial processes like polymer processing and oil extraction, among several others. Practical applications include also formulations and product development. This Special Issue aims to present the latest advances in the fields of experimental and computational rheology applied to the most diverse classes of materials (foods, cosmetics, pharmaceuticals, polymers and biopolymers, multiphasic systems and composites) and processes. This Special Issue will comprise, not only original research papers, but also review articles.