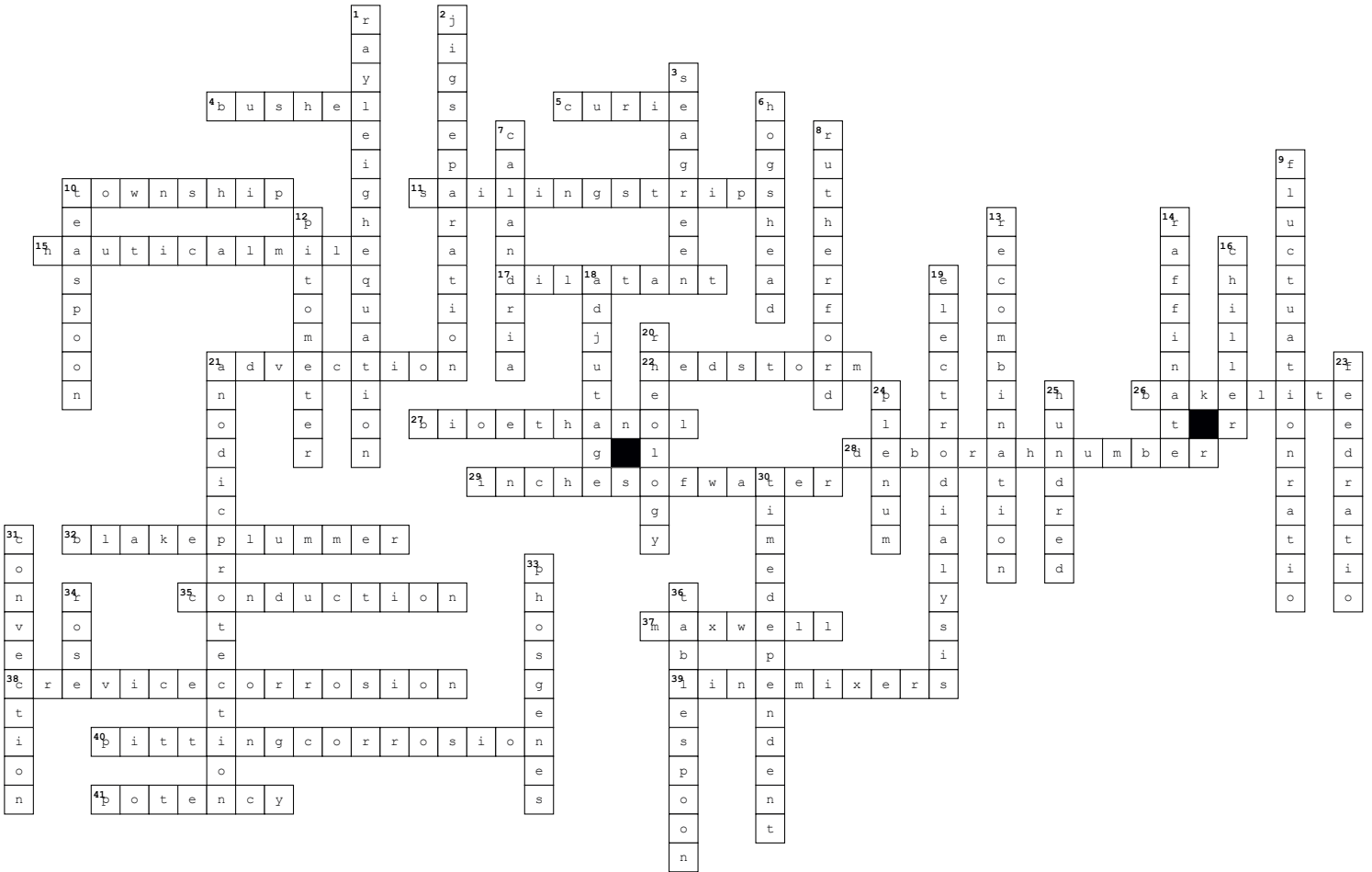


Chem-E-Cross December



Across

4. 1 Liter multiplied by 35.23907 gives the unit (US unit)
5. disintegration/second multiplied by 37 giga gives the unit
10. 1 hectare multiplied by 9323.957 give the unit
11. these longitudinal strips either extend from baffle to baffle or may be inserted in slots cut into the baffles in a shell and tube heat exchanger(replace *ea* with *ai* in the obtained answer)
15. meter multiplied by 1852 gives the unit
17. fluids that show increasing viscosity with increasing shear rate
21. The natural movement of a fluid such as air resulting in horizontal motion caused by local pressure differences.
22. product of Bingham Reynolds number and Bingham number is known as ** Number.Find (**)?(replace *ro* with *or* in the obtained answer)

Down

1. An equation that relates the quantity to the concentration of the more volatile component in the batch distillation.The equation is formulated from an unsteady-state material balance in which vapour leaving the still is in equilibrium with the liquid
2. this separation technique is used to separate light and heavy materials in solid waste by means of density separation
3. pipes carrying fresh water in chemical industries are generally indicated by this color
6. 1 Liter multiplied by 238.4809 gives the unit (US unit)
7. A vertical tube through which heat is exchanged for the purposes of evaporation of a liquid inside.They are used in evaporators ,thermo-siphon reboilers , and nuclear reactors . Steam is often used as the heating medium
8. disintegration/second multiplied by 1 Mega gives

26. the first commercially important plastic
27. The most widely used liquid biofuel . It is produced by the fermentation of starch or sugars including maize (corn), sugar beet, and sugar cane.
28. the ratio of the characteristic relaxation time of the fluid to the characteristic time scale of the flow
29. Pascal multiplied by 22.4884 gives the unit
32. this equation relates the pressure drop in a packed bed to the flow rate for turbulent flows
35. the transfer of heat from one part of a body to another part of the same body, or from one body to another in physical contact with it, without appreciable displacement of the particles of the body
37. 10 weber multiplied by 1 nano gives the unit
38. this type of corrosion occurs within or adjacent to a crevice formed by contact with another piece of the same or another metal or with a nonmetallic material.
39. these are the devices through which the liquids to be contacted are passed, characterized principally by the very small time of contact for the liquids. They are used only for continuous operations or semibatch (in which one liquid flows continuously and the other is continuously recycled).
40. this is a form of corrosion that develops in highly localized areas on the metal surface
41. the strength of a chemical's toxicity is measured by
 - the unit
9. it is the ratio of the highest to the lowest levels which the top of the fluidized bed occupies for any gas flow rate and is a quantification of the fluidization quality.
10. 4.928921 ml is equivalent to the unit
12. a reverse pitot tube is called as (It has one pressure opening facing upstream and the other facing downstream)
13. A biotechnological process used to produce many useful and valuable products with medical, healthcare, agricultural, and veterinary applications. It involves taking genes from the cells of a living organism and transferring them to the cells of another organism.
14. the residual or waste liquid stream leaving a liquid–liquid solvent extraction process after the extraction has taken place with an immiscible liquid to remove solutes from the original liquid
16. this equipment cools a fluid to a temperature below that obtainable if water only were used as a coolant. It uses a refrigerant such as ammonia or Freon
18. A tube inserted into a vessel to obtain a measure of its pressure or to allow the discharge of its contents
19. the desalted product of deashing way is a useful food additive, especially for baby food. This is prepared by the process_?
20. the discipline of fluid mechanics which studies the relationship between fluid deformation and stress
21. This electrochemical method relies on an external potential control system (potentiostat) to maintain the metal or alloy in a noncorroding (passive) condition.
23. the amount of energy required to convert one mole of feed to saturated vapour per molar heat of vaporization
24. A large gas chamber usually connected to ducts and maintained under either positive or negative pressure. It is used in air conditioning
25. A steadily flowing stream of water is funneled into a graduated cylinder for exactly 30 s, during which time 50 mL is collected. Calculate Volumetric flow rate mL/min (enter answer in words)
30. the fluids for which structural rearrangements occur during deformation at a rate too slow to maintain equilibrium configurations. As a result, shear stress changes with duration of shear
31. the transfer of heat from one point to another within a fluid, gas, or liquid by the mixing of one

portion of the fluid with another

- 33.** thermal decomposition of chlorinated hydrocarbons, degreasing, manufacture of dyestuffs, pharmaceuticals, organic chemical produces these air pollutants
- 34.** This particular extraction process uses a liquidsolvent, and the solvent is recovered at supercritical conditions to save energy.(Hint:It was discovered by the founders of Anderson & Kerr Drilling)
- 36.** 14.78976 ml is equivalent to the unit