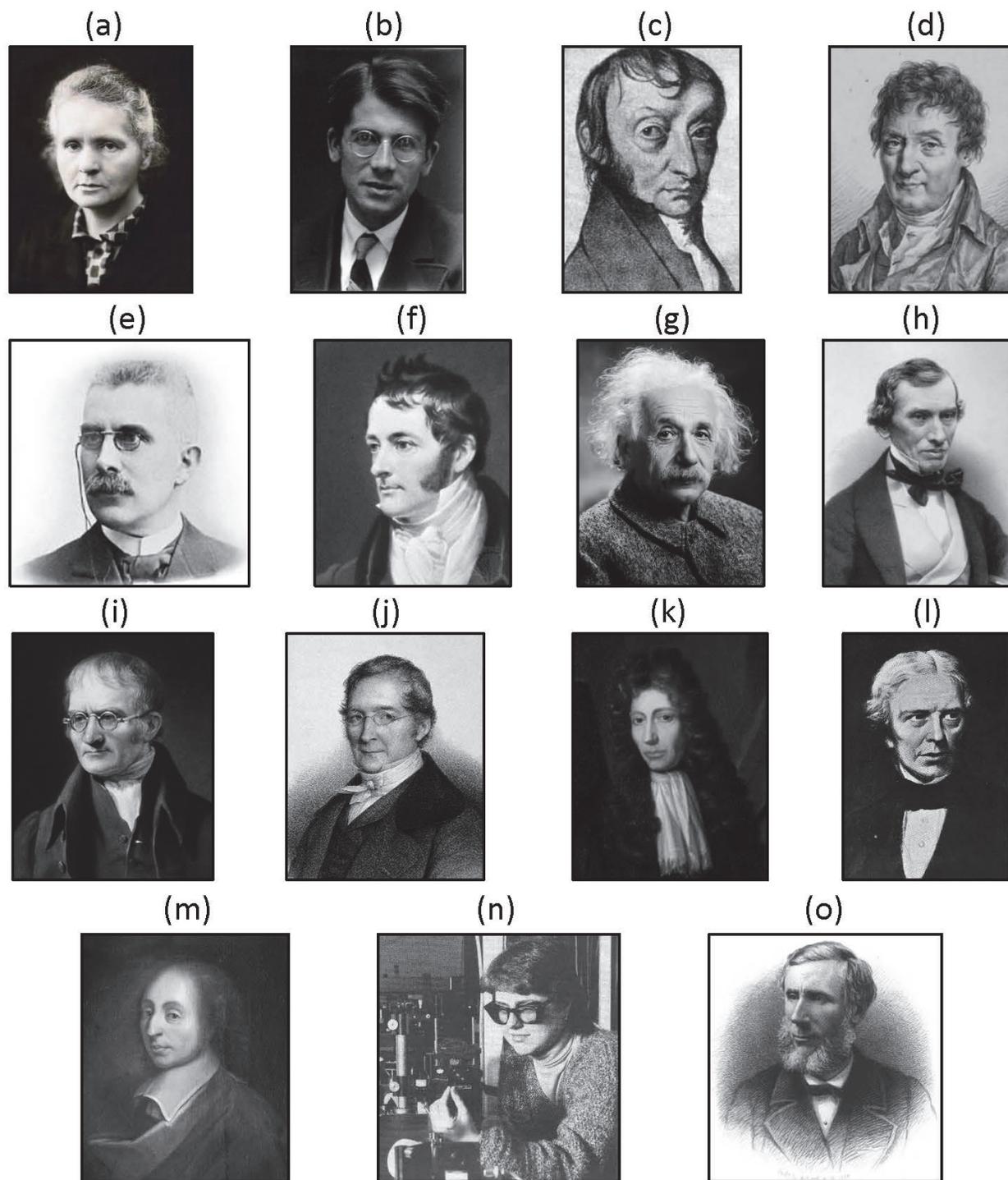


Famous scientists puzzle

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Name and then match the statements below with the scientist's photo on the next page.

Statement	Name of scientist	Photo letter
1) A quantity of energy is equivalent to a quantity of mass times the square of the speed of light.		
2) At a constant pressure, the volume of a given quantity of any gas is directly proportional to the absolute temperature.		
3) At a constant temperature, the amount of gas dissolved in a liquid is directly proportional to the partial pressure of that gas.		
4) At a constant temperature, the volume of a given quantity of any gas varies inversely to the pressure to which the gas is subjected.		
5) At a constant volume, the pressure of a given quantity of any gas is directly proportional to the absolute temperature.		
6) Certain elements contain an unstable atomic nucleus which loses energy by emitting radiation.		
7) Electrons occupy orbitals in the same energy level such that the number of electrons with the same spin direction is as large as possible.		
8) Equal quantities of electric charge or discharge equivalent quantities of ions at each electrode.		
9) Equal volumes of diffused gases at the same pressure and temperature contain the same number of particles.		
10) If some stress is introduced to a dynamic equilibrium, the system changes to relieve that stress and return to a dynamic equilibrium.		
11) Light passing through a colloidal suspension will become visible due to being scattered by the particles.		
12) Pressure exerted to any point upon a confined liquid is transmitted undiminished in all directions.		
13) Stretching, amplifying and then compressing a laser beam could boost the intensity of the light dramatically.		
14) The relative rates of effusion of gases under the same conditions are inversely proportional to the square roots of the molar masses of these gases.		
15) The total pressure of a mixture of non-reacting gases equals the sum of the partial pressure of each gas.		



Enter your students' correct solutions into a draw on or before March 1, 2019. The prize is a *Liquid Light Demo* to be awarded to the teacher. The prize is donated by Educational Innovations. For more information about this prize go to www.teachersource.com. Please have your students print their names clearly and send your students' solutions to: *Chem 13 News*, Famous scientists, Department of Chemistry, University of Waterloo, Waterloo, Ontario, N2L 3G1, Canada; or email kjackson@uwaterloo.ca.



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