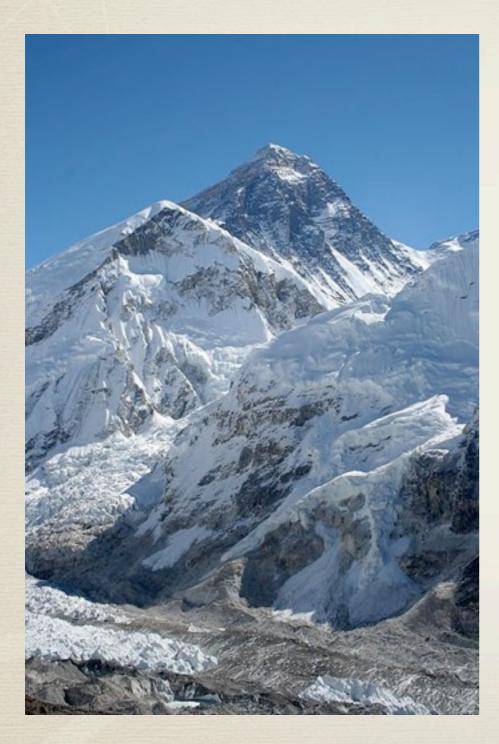
## پرسش تیر ماه



بیشترین ارتفاعی که کوه ها می توانند داشته باشند چقدر است ؟

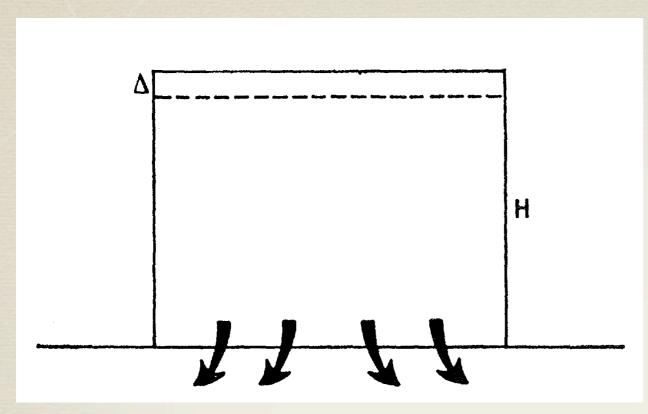
# پاسخ پرسش تیر ماه



شوند پیدایش کوه جابجایی صفحه های شناور پوست زمین

حد ارتفاع ذوب شدن لایه ی زیرین - تغییر پلاستیک

## انرژی گرانشی یک مولکول در نوک کوه



$$E=\zeta B=\zeta \gamma R_y$$
 برای خاک  $\gamma=0.2$   $\zeta=0.05$ 

$$E=AMHg$$
  $A=50$  Silicon oxide باید با کسری از انرژی پیوند برابر  $E=\zeta B$ 

تخمین کسر از روی انرژی نهان ذوب
$$E_l = 80cal$$
 و تبخیر آب $E_v = 540cal$   $\zeta = 0.1$ 

با مساوی قرار دادن دو انرژی برای حد ارتفاع خواهیم داشت

$$H = \zeta \gamma \frac{R_y}{AMg} = 26km$$

### مقاله ي مرجع:

21 February 1975, Volume 187, Number 4177

#### SCIENCE

#### Of Atoms, Mountains, and Stars: A Study in Qualitative Physics

Victor F. Weisskopf

One of the important achievements of physics in the present century is a fundamental understanding of the behavior and the properties of matter in and demonstrating thereby the power and the fundamental simplicity of these insights. It will show how deeply the quantum is involved in our everyday

nature of the confinement. For example, an electron, confined by the Coulomb field of the nucleus, exhibits a series of wave patterns, which are shown in Fig. 1. Similar beautiful patterns develop in any confining field which is spherically symmetric. The simpler patterns have lower frequencies and, on the basis of the second de Broglie relation, lower energies. A new aspect came into physics when these patterns were found to be part of nature's structure. It is the appearance of characteristic shapes or forms in our interpretation of the fundamental structure of nature. Physics acquired a "morphic" character. Specific shapes had no justification in the classical physics of particles; quantum mechan-

# پرسش مرداد ماه



قایق بادبانی چطور خلاف جهت باد حرکت می کند