

$$Q_{na} = \frac{\sqrt{3}b}{2\pi} \sqrt{(n^2 + m^2 + mn)} + \frac{t}{2}. \quad (2)$$

To calculate the modulus of elasticity of single-layer nanotubes (SWNTs) «zigzag» following relationship was obtained:

$$E = \frac{\lambda K^\theta K^\varrho}{3b^2 K^\varrho + 9\lambda K^\theta} \left(\frac{8\sqrt{3}Q_n}{Q_{na}^2} \right). \quad (3)$$

where $\lambda = \frac{8 - 2\cos^2 \gamma}{4 - 3\cos^2 \gamma}$.

The angle associated with the effect of curvature and is equal $\frac{\pi}{2n}$.

With the change in the number of layers of the nanotube a modulus of elasticity for the MWNT is expressed by the formula:

$$E_m = \frac{8\sqrt{3}N}{[(N-1)h+1]} \frac{K^\theta K^\varrho}{b^2 K^\varrho + 18K^\theta}, \quad 1 < N \leq 1 + 2Q_0/h, \quad (4)$$

where h — distance between the layers of multilayer nanotubes, equal to 0.34 nm. $K^\varrho/2 = 46\,900$ kkal/mol/nm², $K^\theta/2 = 63$ kkal/mol/rad². There are a permanent forces of tension and constriction.

As a result, we see that with decreasing radius of a single-layer nanotubes «zigzag» and, as a consequence, a decrease of chirality, the modulus of elasticity increases. The modulus of elasticity for multilayer nanotubes depends of the diameter of the nanotube and becomes less sensitive to an increase in the number of layers when ($N \geq 8$).

REFERENCES

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BANK

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A bank is a financial institution licensed by a government. Its primary activities include borrowing and lending money.

The first state deposit bank, Banco di San Giorgio (Bank of St. George), was founded in 1407 at Genoa, Italy.

The name *bank* derives from the Italian word *banco* "desk/bench", used by Florentine bankers, who used to make their transactions above a desk covered by a green tablecloth.

Banks act as payment agents by conducting checking or current accounts for customers, paying cheques drawn by customers on the bank, and collecting cheques deposited to customers' current accounts.

Banks borrow money by accepting funds deposited on current accounts, by accepting term deposits, and by issuing debt securities such as banknotes and bonds. Banks lend money by making advances to customers on current accounts, by making instalment loans, and by investing in marketable debt securities and other forms of money lending.

Banks borrow most funds from households and non-financial businesses, and lend most funds to households and non-financial businesses.

Under English common law, a banker is defined as a person who carries on the business of banking, which is specified as:

- conducting current accounts for his customers
- paying cheques drawn on him, and
- collecting cheques for his customers.

Bank statements are accounting records produced by banks under the various accounting standards of the world. There are two kinds of accounts: debit and credit. Credit accounts are Revenue, Equity and Liabilities. Debit Accounts are Assets and Expenses. This means you credit a credit account to increase its balance, and you debit a debit account to increase its balance.

Currently in most jurisdictions commercial banks are regulated by government entities and require a special bank licence to operate.

The requirements for the issue of a bank licence vary between jurisdictions but typically include:

1. Minimum capital
2. Minimum capital ratio
3. 'Fit and Proper' requirements for the bank's controllers, owners, directors, and/or senior officers
4. Approval of the bank's business plan as being sufficiently prudent and plausible.

One source of deposits for banks is brokers who deposit large sums of money on the behalf of investors. Such deposits, combined with risky real estate investments.

A bank generates a profit from the differential between the level of interest it pays for deposits and other sources of funds, and the level of interest it charges in its lending activities.

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