

Notes of elementary physics 3

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1 Electric force

1.1 Electric charge

After rubbing two identical bars of glass with a two identical pieces of silk, we observe that, when we try to put the two bars together, a force appears and tries to separate the bars. In a similar way, when we try to put the two pieces of silk together, another force appears and tries to separate the two pieces. However, if we put the bar and the piece of silk at a close distance, a force appears and tries to join the two objects. From this experiment, we can conclude that there exists a property of matter, like mass, called *electric charge*. In fact, the experiment reveals that there are two types of electric charge, which are called *positive* and *negative*. Two charges with equal signs repel each other and two charges with opposite signs attract each other.