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1 cm to nm

centimeter to nanometers Conversion Table: cm to nm 1.0 = 10000000 2.0 = 20000000 3.0 = 30000000 4.0 = 40000000 5.0 = 50000000 6.0 = 60000000 7.0 = 70000000 8.0 = 80000000 9.0 = 90000000 centimeter to nanometers 10 = 100000000 20 = 200000000 30 = 300000000 40 = 400000000 50 = 500000000 100 = 1000000000 500 = 5000000000 1000 = 10000000000 5000 = 50000000000 nanometers to centimeters Conversion Table: nm to cm 1.0 = 0.0000001 2.0 = 0.0000002 3.0 = 0.0000003 4.0 = 0.0000004 5.0 = 0.0000005 6.0 = 0.0000006 7.0 = 0.0000007 8.0 = 0.0000008 9.0 = 0.0000009 nanometers to centimeters 10 = 0.000001 20 = 0.000002 30 = 0.000003 40 = 0.000004 50 = 0.000005 100 = 0.00001 500 = 0.00005 1000 = 0.0001 5000 = 0.0005 The centimeter (British spelling: centimetre, abbreviation: cm) is a unit of length in the SI system (metric system). One cm is equal to one hundredth of the meter (British spelling: metre), which is the current SI base unit of length. One centimeter (cm) = 10 millimeters (mm) = 0.01 meter (m) = 0.1 decimeters (dm) = 10000000 nanometers (nm) = 0.00001 kilometers (km) = 0.393700787401 inch (in) = 0.032808399 feet (ft) = 0.010936133 yards (yd). nanometer to centimeters Conversion Table: nm to cm 1.0 = 0.0000001 2.0 = 0.0000002 3.0 = 0.0000003 4.0 = 0.0000004 5.0 = 0.0000005 6.0 = 0.0000006 7.0 = 0.0000007 8.0 = 0.0000008 9.0 = 0.0000009 nanometer to centimeters 10 = 0.000001 20 = 0.000002 30 = 0.000003 40 = 0.000004 50 = 0.000005 100 = 0.00001 500 = 0.00005 1000 = 0.0001 5000 = 0.0005 centimeters to nanometers Conversion Table: cm to nm 1.0 = 10000000 2.0 = 20000000 3.0 = 30000000 4.0 = 40000000 5.0 = 50000000 6.0 = 60000000 7.0 = 70000000 8.0 = 80000000 9.0 = 90000000 centimeters to nanometers 10 = 100000000 20 = 200000000 30 = 300000000 40 = 400000000 50 = 500000000 100 = 1000000000 500 = 5000000000 1000 = 10000000000 5000 = 50000000000 The nanometer (British spelling: nanometre , abbreviation: nm) is a unit of length in the SI system (metric system). One nm is equal to one billionth of the meter (British spelling: metre), which is the current SI (Metric system) base unit of length. One nanometer (nm) = 0.0000001 centimeters (cm) = 0.000001 millimeters (mm) = 0.000000001 meter (m) = 0.00000001 decimeters (dm) = 0.0000000393700787401 inch (in) = 0.0000000032808399 feet (ft) = 0.0000000010936133 yards (yd). Get the Widget! ADD THIS CONVERTER ON YOUR WEBSITE: Add Centimeter to Nanometer Converter to your website to get the ease of using this unit converter directly. Feel hassle-free to account this widget as it is 100% free. Available on App Try Unit Converter App for your Mobile to get the ease of converting thousands of units. It's 100% free with ample of features! No doubt, converting from centimeter to nanometer is a common task in the realms of engineering and math, but, luckily, it's become easy with an online converter. Apart from that, there are plenty of reasons why you might want to convert centimeters to nanometers. Yes, our cm to nanometers converter is taken into account to attain precise value corresponding to cm to nm measurements. Additionally, these conversions become handy with the assistance of formula or the mentioned table, but before that let we begin with some basic terms! Did You Know! 1 centimeter (cm) is equal to 10000000 nanometer (nm) 1 nanometer (nm) is equal to 1e-7 centimeter (cm) Cm to nm Formula: The formula for centimeter to nanometer is: nm = cm x 10,000,000 How to convert centimeter to nanometer (cm to nm)? If you want to do it yourself, then it's time to take your pen and notebook and look at the given example, and if you want to do it by a converter, then simply add the single centimeter (cm) value to get the equivalent nanometers (nm). Example of a centimeter to nanometers (nm) conversion: Problem: Convert 45 centimeter to nm? Solution: Step 1 (Formula): Step 2 (Put the Values): Step 3 (Result): Means, 45 centimeters (cm) is equal to 450,000,000 nanometers (nm) cm to nanometers converter How to convert cm to nm measurements. Additionally, these conversions become handy with the assistance of formula or the mentioned table. Apart from that, there are plenty of reasons why you might want to convert centimeters to nanometers. Yes, our cm to nanometers converter is taken into account to attain precise value corresponding to cm to nm measurements. Step 3 (Result): 35 cm is equal to 350,000,000 nm Result: 35 cm is equal to 350,000,000 nm « Home page, unit conversion The following information will give you different methods and formula(s) to convert cm in nm Formulas in words By multiplication Number of centimetre multiply(x) by 10000000, equal(=): Number of nanometre By division Number of centimetre divided(/) by 1.0E-7, equal(=): Number of nanometre Calculation Example of centimetre in nanometre By multiplication 9 cm(s) * 10000000 = 90000000 nm(s) By division 9 cm(s) / 1.0E-7 = 90000000 nm(s) Rounded conversion Note that the results given in the boxes on the form are rounded to the ten thousandth unit nearby, so 4 decimals, or 4 decimal places. Linear unit of measurementWe use this length unit in different situations such as distance calculation, length, width, height and more. Other units in centimetre Convert other units: Metric system The unit centimetre is part of the international metric system which advocates the use of decimals in the calculation of unit fractions. Table or conversion table cm to nm You will find the first 100 centimetres converted to nanometres In () you have the number of nanometres rounded to the closest unit. centimetre(s) nanometre(s) 1 cm(s)10000000 nm(s) (10000000)2 cm(s)20000000 nm(s) (20000000)3 cm(s)30000000 nm(s) (30000000)4 cm(s)40000000 nm(s) (40000000)5 cm(s)50000000 nm(s) (50000000)6 cm(s)60000000 nm(s) (60000000)7 cm(s)70000000 nm(s) (70000000)8 cm(s)80000000 nm(s) (80000000)9 cm(s)90000000 nm(s) (90000000)10 cm(s)100000000 nm(s) (100000000)11 cm(s)110000000 nm(s) (110000000)12 cm(s)120000000 nm(s) (120000000)13 cm(s)130000000 nm(s) (130000000)14 cm(s)140000000 nm(s) (140000000)15 cm(s)150000000 nm(s) (150000000)16 cm(s)160000000 nm(s) (160000000)17 cm(s)170000000 nm(s) (170000000)18 cm(s)180000000 nm(s) (180000000)19 cm(s)190000000 nm(s) (190000000)20 cm(s)200000000 nm(s) (200000000)21 cm(s)210000000 nm(s) (210000000)22 cm(s)220000000 nm(s) (220000000)23 cm(s)230000000 nm(s) (230000000)24 cm(s)240000000 nm(s) (240000000)25 cm(s)250000000 nm(s) (250000000)26 cm(s)260000000 nm(s) (260000000)27 cm(s)270000000 nm(s) (270000000)28 cm(s)280000000 nm(s) (280000000)29 cm(s)290000000 nm(s) (290000000)30 cm(s)300000000 nm(s) (300000000)31 cm(s)310000000 nm(s) (310000000)32 cm(s)320000000 nm(s) (320000000)33 cm(s)330000000 nm(s) (330000000)34 cm(s)340000000 nm(s) (340000000)35 cm(s)350000000 nm(s) (350000000)36 cm(s)360000000 nm(s) (360000000)37 cm(s)370000000 nm(s) (370000000)38 cm(s)380000000 nm(s) (380000000)39 cm(s)390000000 nm(s) (390000000)40 cm(s)400000000 nm(s) (400000000)41 cm(s)410000000 nm(s) (410000000)42 cm(s)420000000 nm(s) (420000000)43 cm(s)430000000 nm(s) (430000000)44 cm(s)440000000 nm(s) (440000000)45 cm(s)450000000 nm(s) (450000000)46 cm(s)460000000 nm(s) (460000000)47 cm(s)470000000 nm(s) (470000000)48 cm(s)480000000 nm(s) (480000000)49 cm(s)490000000 nm(s) (490000000)50 cm(s)500000000 nm(s) (500000000)51 cm(s)510000000 nm(s) (510000000)52 cm(s)520000000 nm(s) (520000000)53 cm(s)530000000 nm(s) (530000000)54 cm(s)540000000 nm(s) (540000000)55 cm(s)550000000 nm(s) (550000000)56 cm(s)560000000 nm(s) (560000000)57 cm(s)570000000 nm(s) (570000000)58 cm(s)580000000 nm(s) (580000000)59 cm(s)590000000 nm(s) (590000000)60 cm(s)600000000 nm(s) (600000000)61 cm(s)610000000 nm(s) (610000000)62 cm(s)620000000 nm(s) (620000000)63 cm(s)630000000 nm(s) (630000000)64 cm(s)640000000 nm(s) (640000000)65 cm(s)650000000 nm(s) (650000000)66 cm(s)660000000 nm(s) (660000000)67 cm(s)670000000 nm(s) (670000000)68 cm(s)680000000 nm(s) (680000000)69 cm(s)690000000 nm(s) (690000000)70 cm(s)700000000 nm(s) (700000000)71 cm(s)710000000 nm(s) (710000000)72 cm(s)720000000 nm(s) (720000000)73 cm(s)730000000 nm(s) (730000000)74 cm(s)740000000 nm(s) (740000000)75 cm(s)750000000 nm(s) (750000000)76 cm(s)760000000 nm(s) (760000000)77 cm(s)770000000 nm(s) (770000000)78 cm(s)780000000 nm(s) (780000000)79 cm(s)790000000 nm(s) (790000000)80 cm(s)800000000 nm(s) (800000000)81 cm(s)810000000 nm(s) (810000000)82 cm(s)820000000 nm(s) (820000000)83 cm(s)830000000 nm(s) (830000000)84 cm(s)840000000 nm(s) (840000000)85 cm(s)850000000 nm(s) (850000000)86 cm(s)860000000 nm(s) (860000000)87 cm(s)870000000 nm(s) (870000000)88 cm(s)880000000 nm(s) (880000000)89 cm(s)890000000 nm(s) (890000000)90 cm(s)900000000 nm(s) (900000000)91 cm(s)910000000 nm(s) (910000000)92 cm(s)920000000 nm(s) (920000000)93 cm(s)930000000 nm(s) (930000000)94 cm(s)940000000 nm(s) (940000000)95 cm(s)950000000 nm(s) (950000000)96 cm(s)960000000 nm(s) (960000000)97 cm(s)970000000 nm(s) (970000000)98 cm(s)980000000 nm(s) (980000000)99 cm(s)990000000 nm(s) (990000000)100 cm(s)1000000000 nm(s) (1000000000) Year of adoption of centimetre 1795Year of adoption of nanometre 1960 Basics Spectroscopists of the chemistry variety have found that inverse cm is a wonderful way to measure light. It is proportional to the wavenumber and the frequency (and therefore energy), but it makes those of us that are trained in rational units pull our hair out. And then if you get into a discussion with semiconductor experts, they want you to talk in electronvolts (eV). IF you are talking about ABSOLUTE wavelength (i.e. the wavelength of CO2 laser is 10.6 microns) then the conversion goes as follows: Wavelength in μm = 10,000/cm-1So the wavelength of light having a wavenumber 300 cm-1 => 33 microns 10,000/300 = 33 μmWavelength in nm = 10,000,000/cm-1so the wavelength of light having a wavenumber of 4000 cm-1 => 2500 nm 10,000,000/4000 = 2500 nm Wavenumbers in cm-1= 10,000/μm So the wavelength of CO2 lasers of 10.6 microns => 943 cm-1 10,000/10.6 = 943 cm-1 Wavenumbers in cm-1= 10,000,000/nm So 632.8 nm => 15800 cm-1 How to convert absolute cm-1 to electron volts or eVWe mentioned before that inverse cm are proportional to the photon energy. The energy of a photon is hc/lambda , so if you are working in eV and nm eV = 1.23984 x 103/nmSo the photon energy in eV = 1.23984 x 10-4* cm-1So 632.8 nm HeNe laser photons have an energy of 15800 wavenumbers or 1.96 eV1.2394 x 103/ 632.8 = 1.96 eVIn other words, the proportionality constant is Plank's constant times the speed of lighthc in units of eV/cm Since one eV is 1.602 x 10-19 Joules, use the above formula and multiply by that factorJoules = 1.986 x 10-23/nmYou may recognize the number 1.602 x 10-19 as the charge of an electron in Coulombs. Of course this is where it gets tricky, because the result depends on the absolute wavenumber, in other words a bandwidth of 10 cm-1 is 1000 microns at one wavelength, but 0.1 microns at another. If you have a peak width of inverse centimeters converting to a peak width of microns could be painful. But taking the derivative of the above equations you can get the formula d(Wavelength in μm) = (10,000 * d(cm-1)/(cm-1)2) The notation is a little awkward, sorry. What this means is that you take the peak width [d(cm-1], divide it by the square of the absolute wavenumber of the center of the peak [(cm-1)] and multiply by 10,000 to get the peak width in μm.So a peak that is centered at 943 cm-1 and is 12 cm-1 wide would be also a peak centered at 10.6 microns and 0.13 microns wide.d(Wavelength in nm) = (10,000,000 * d(cm-1)/(cm-1)2)So a peak that is centered at 20492 cm-1 with a line width of 10 cm-1 would also be a peak centered at 488 nm with a linewidth of 2.4 · 10-8 nm. How to convert delta cm-1 to delta micrometers or delta nanometers d(Wavenumber in cm-1) = (10,000 * d(μm)/(μm)2)Or a peak that has wavelength of 33 microns and is 0.2 microns wide would be centered at 303 cm-1 and be 1.84 cm-1 wide d(Wavenumber in cm-1) = (10,000,000 * d(nm)/(nm)2) or a peak that has a wavelength of 1.06 nm and a linewidth of .01 nm would be centered at 9433962 cm-1 with a line width of 89000 cm-1 How to convert delta cm-1 to delta electronvolts or eVSince eV is proportional to cm-1 this is easyd(eV) = d(cm-1) * 1.23984 x 10-4So a bandwidth of 10 cm-1 would be a bandwidth of 1.24 meV Calculatorspowertechno2021-05-25T16:57:39+00:00