

Alpha-Emitting Nanoparticulates and Their Various Physical Effects: More Case Studies in Laboratory Research and History

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Abstract Here is presented a range of cases in which alpha-emitting nanoparticulates play a key role : the first part involves mathematical and physical deconstruction of two examples of laboratory experiments, on “exciton” physics (dark-to-bright “exciton” conversion, the demonstration shows why “exciton” is a relatively poor concept) and on the anomalous Nernst effect, both recently published in Physical Reviews X; the link of alpha-emitting nanoparticulates with solar storms is then shown ; and an ancient legend in medieval literature (the Arthurian cycle) also covered (the physical basis behind the legend is explained - demonstration of the actual production of particularly healthy waters collected by “Merlin” after a battle, of why it is a detoxifiant - geology and etymology being used to locate more precisely the place of the actual battles that inspired the myth - from the Gallic Wars of Julius Caesar).

Keywords: radioactivity, rational analysis of history, solar storms, climate change, water quality, ancient legends, Julius Caesar, Gallic Wars, colonial history, photon physics, particle physics, excitons, dark-to-bright exciton conversion, anomalous Nernst effect

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1. Production of Light in Carbon Nanotubes

The main principles applied to understand „dark-to-bright exciton conversion“ results presented in [1] have been exposed for the first time in [2].

The main sources of energy that the electron flow captures and transforms to output visible light are the alpha decays of radon in the setting of the experiment and the background gamma radioactivity.

Radon decays sometimes get into the electron flow, they are easily captured as their positive charge leads them directly into the negatively charged electrons; they are captured but keep most of their kinetic energy and spin very fast. Gamma photons of the background that cross the spinning couples are compressed during the crossing and their wavelength is demultiplied as they are released. It is a form of photon diffraction. Diffraction effect thanks to elastic rebound of the gamma photon after temporary compression under spin of the alpha particle with the e-. The gamma photon is „ductile“ like the actinide that emits it. In other words, there is a continuation of nature from the mother atom to the daughter particle, which is why the particle can go through *extreme* deformation. The deformation, here, is *extreme*.

This is why the calculation is identical to calculation of the compression factor for the formula to evaluate critical mass - see for instance the famous patent¹.

For a typical background gamma ray of 49 keVs (7,851 * 10⁻⁸ ergs) the wavelength is 3 * 10⁻⁹ centimeters.

The photon is compressed by the quickly spinning couples of much heavier particles.

By multiplying the typical formula for compression (1/square root of the alpha decay energy)² one finds a resulting wavelength of the photon of (3,9*10⁻⁹*(1/(√(8.956*10⁻⁶))) = 1,002 * 10⁻⁶ centimeters (10,02 nanometers) which falls back onto the average chiral indice of I_B (length of the area of maximum activity in Figure 1c (ibid) and in Figure 2b)

Hence the principles of conversion of „dark-to-bright excitons“ in this experiment explained.

Another example was, by luck, observed in nature during the massive fallout of the Taal volcano eruption

¹ Fission was in fact already known in 1928 as demonstrated by Chair de poule inaugurale by Salvador Dali, a painter with good connexions who represented everything from the alpha decay + beryllium neutron source, to the compression, final explosion and „descaling“ of a human victim grilled by the small antitank-yield explosion. Then “molten clocks”, by 1931.

² Because the alpha particle emitted from the nearby decay spins around itself its energy is brought down to square root.

(leading to both alpha-emitting nanoparticulates and beta emitters emitted in the eruption and flying across the world) at the home of the author in Brittany at the end of January 2020 ; the double compression (Bose-Einstein condensation) of beta particles and alpha decay, activated by the flight of a little bird, during a black and humid night with strictly no winds, and the quite active geology confirmed by a Magnitude 3,2 earthquake a few days before in the Channel - granite underground with its low activity, activation by the long period of rainfalls and again by the quake [3]. Just before the bird, a very noisy vehicle and polluting vehicle had passed, emitting more alpha emitting nanoparticles from exhaust fumes (somehow explosive), moving the bird - it flees, seen half a minute after.

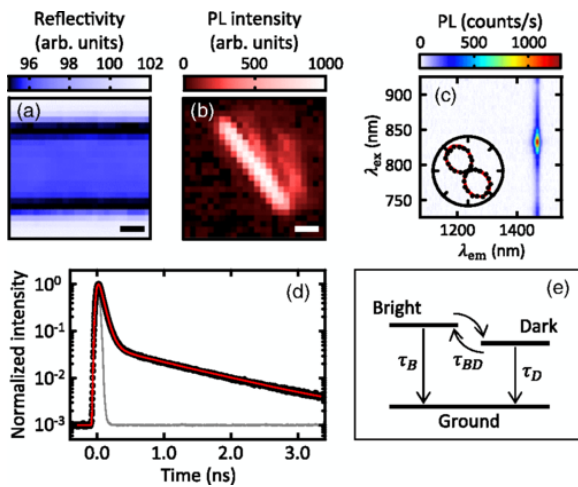


Figure 1. length of the area of maximum activity

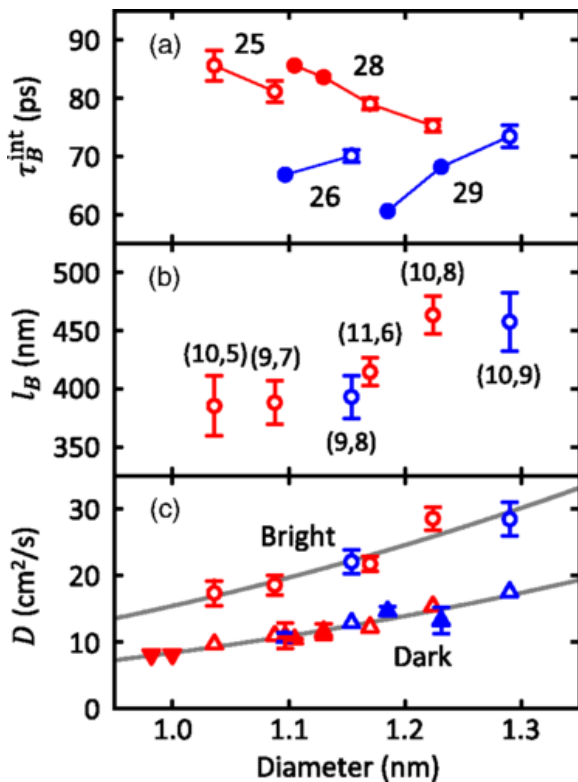


Figure 2. length of the area of maximum activity

This is a particularly easy application of the above. The gamma photons from the usual underground magmatism

pass through a thread of alpha and beta pollution that is brought suddenly closer by the bird, it creates a quick and dim „pond of light“ effect at each wing movement of the bird. The Bose-Einstein condensation of the water (the humidity dominating the atmosphere) makes little *prisms of humidity* through which the gamma background is strongly deformed, with a light resulting of the intensity of a candle (and 565 to 590 nanometers wavelength), lasting for 1/5th of a second approximatively.

2. The Anomalous Nernst effect

The results of the authors in [4] on the intrinsic anomalous Nernst effect are explained by the contamination of the samples with impurities, radioactive decay rules and cosmic neutrons.

Sn comes from mines in areas of high natural radioactivity and contamination with a few atoms of all the decay chains of U238 and Th232 (mainly) has been expected, due to low quality of the extraction. Further, radon in any time *will* deposit itself on the samples, in the production process (as radon contaminates the chemical vapor transport process for the sample - gets mixed into the halogen vapor and enters the resulting samples), during transport of the samples and directly in the laboratory room used for the experiment.

So there is an alpha & beta minus activity in the samples (especially B5 the dirtiest which shows a stronger intrinsic ANE in the authors' experiment).

Alpha decays can happen in a direction aiming out of the sample. Whereas there is as well some beta minus particles staggering inside some of these particles will be attracted out (one beta minus particle per alpha decay aiming out), leading to the impression that the sample emits electrons. Another way for an intrinsic ANE is through cosmic neutrons: they of course impact the samples and (n,p) can happen with a very low probability ; thanks to its positive charge and resulting kinetic energy, each p expelled from the sample will carry behind, out of the sample, one beta minus particle of the decay activity of the impurities leading as well to the intrinsic ANE.

3. Reading through Solar Storms

The basis is the simple law of natural balance in reaction to extreme pressures produced by human interactions with the environment. See [5] for a wider scale demonstration of the natural balance as concerns climate change, including through survey of events functioning in the direction that matters today (reduction of abnormally high temperature levels due to anthropogenic global warming in recent years through natural disasters).

a. Why Carrington ?

The presence of ²³⁸U, ²³⁵U and ²³²Th and their decay chains in phosphated fertilizers whose development started in the past decades, together with the same in coal ore contaminating coal fumes, have laid the basis for the Carrington event, in a situation in which the atmosphere had become particularly cold (the temperature reconstruction in [6] demonstrating how temperatures had reached a global low, even slightly under levels of the medieval period).

The release of electrons in a massive scale by the Sun is linked to the presence of an onground and atmospheric sum of positive charges from the alpha decay of the man-made use of coal and phosphated fertilizers. It is a new contamination that conjugates with the low levels of heat (in a period of low levels of volcanic tephtras). The Carrington event comes to solve the crisis, adds heat & compensates for the excess positive charges.

It is important to point out that most reports on the Carrington event come from the USA and the UK & the British Commonwealth where economic development was more advanced and coal and phosphated fertilizers used in a bigger scale. There is no significant report from France which was (as it is well known) economically delayed in comparison.

The Baltimore American and Commercial Adviser notes: The light was greater than that of the moon at its full, but had an indescribable softness and delicacy that seemed to envelop everything upon which it rested.

The widespread, enveloping nature of the soft light is obviously linked to the contact between the electrons carrying the rest of the solar particles near ground levels where alpha emitting nanoparticles lay. The "softness and delicacy" of the light is related to the diffuse nature of that contamination attracting electrons and, behind, the other particles carried by the electrons, in a diffuse way.

It is easy to point out how the event started at the end of the summer ; temperatures had started to decrease ; so, as the energy levels (Brownian movement etc.) in the atmosphere start to decrease, a window opens for the Sun to compensate the excess levels of positive charges caused by coal & use of phosphated fertilizers (whereas, before that and due to still high temperatures, the levels of energy in the atmosphere were too elevated, there was a protective barrier for the positive charges) - hence breach of potential barrier, a solar storm of extremely high magnitude comes to rebalance.

b. The progressive reduction of the magnitude of solar storms events in later decades shows, in negative, the progressive warming of the atmosphere.

The 1921 event was obviously linked to the end of industrial efforts of WW1 together with the very significant human losses of life of the Spanish Flu reducing atmospheric levels of heat, in combination with the increased levels of release of alpha-emitting nanoparticulates from esp. use of coal ores, and phosphated fertilizers.

The 1960 event also matched a low in volcanic tephtras and a much stronger spread of alpha emitting nanoparticulates, with, especially, atmospheric nuclear testing in addition to the former. Lastly, the 1989 event corresponds to a reduction of the intensity of the military-industrial effort at the eve of the final collapse of the Eastern Block, together with some other key events. The limited reduction of atmospheric volcanic tephtras vs. earlier times (St Helens and El Chichon - see again [4] for details) together with a reduction of the military-industrial effort and with the unique, for these times, release of transuranics of the Chernobyl accident have conjugated for that new breach of potential barrier in the Sun, nevertheless weaker than past events as the reduction of energy levels in the atmosphere at the end of the 1980s was just very

transitory (with anthropogenic global warming, overall, accelerating)³.

The global low in temperatures of the 1850s to early 1900s was obviously linked to the development of European colonial powers and the massive rates of life losses in the continents where these colonial powers advanced with their superior firepower. The deceleration of the temperature decrease shows the progressive reduction of mass murder in colonization, with humane relations almost everywhere by 1900. Violence had *progressively* slowed down everywhere, except in the private property of Leopold II⁴ still celebrated in the center of Brussels, and locally later in Deutsch-Südwestafrika under direction of the father of Nazi Luftwaffe commander Göring. Colonization in Latin America where rates of murder were horrendous, well before, explains the end of the "medieval warm period", and the major European wars of the period until 1815⁴ are supplementary contributors to that *long-term process* of coldening fostered by the development of gunpowder and more efficient artillery together with the epidemics of diseases in indigenous groups, sometimes deliberately fostered with contaminated products.

4. The legends of Arthur & Merlin in Brittany

There is in general a physical basis behind strange events romanticized by narrators ; strange phenomena catch the attention of some people, they are not understood due to lack of knowledge of science, and, as writers with purposes of making profit with the rumours, or with ideological purposes, learn about these phenomena, they simply manipulate them in the way of their purposes. Profit does not necessarily mean monetary profit, it can be personal fame, for instance.

a. Physical data :

The first event relates to visions of Arthur⁴ involving a dragon spitting fire⁴ as he is sleeping in his boat in the Channel, between Brittany and Southampton. The dream obviously relates to an actual feeling: in the chain of events of the legend, troops comprizing a total of „40 160 men“ have come to Brittany, an area with underlying magmatism. The weight of the many men and, especially, their military equipment, imposes a further pressure and increases the nuclear fission yields, thus pushing up very slightly the heat, influencing a bit on the dreams of Arthur

³ The question of grounding (electricity networks) was raised as concerns the persistence of the positive charges from human sources of contamination in the ground. The general positivity of soils due to the general levels of natural radioactivity answers to electrons from grounding (*natural radioactivity explains why grounding works*). Alpha-emitting nanoparticulates from coal, phosphated fertilizers etc. fly in the atmosphere and land in areas (agricultural for instance, forests and other natural settings for coal fallout) where there are no grounded electricity networks nearby so they represent a surplus. There are underground sources of beta minus particles - nuclear fission events underground (magmatism), as demonstrated in [7]. But solar storms have happened in periods of low volcanic activity, hence periods of, in average, low underground production of beta minus particles.

⁴ As they were not followed by a *significant* "baby-boom" - there was a *small* one in the UK after the victory against Napoleon.

(i.e. of the person that provides the idea for the later story) as he feels the variations.

The same mechanism is involved below for the second event. The second event in the Arthurian cycle where a physical veracity is simple to demonstrate is the emergence of a source of clear water found by „Merlin“ at the bottom of a „mountain“, after a war.

By simply imagining the war happened onto a magmatic mountain, as many soldiers have been killed and their war material burned and spread apart by pillage, there is a simple explanation for the event. The increase in density meant by the coming of the warriors meant an increase in nuclear fission yields and hence destruction of more ^{235}U , ^{233}U , (which comes from the neutron activation of naturally-occurring ^{232}Th of course), and, from neutron activation of ^{238}U , ^{239}Pu in the underground magma. First, there is water output from the simple combination (merger under pressure) of ternary fission products including protons, neutrons and beta minus particles of the fission products, and, second, there are obviously already existing water tables from rains and past magmatic activity ; in all cases with varying levels of contamination with actinides and other alpha emitting nanoparticulates. The water tables are pushed underground due to pressure of the soldiers & their material (heavy catapults, ballistas etc) in the core of the mountain, where they are purified hence by nuclear fission. As the soldiers' bodies are eaten by crows, their materials stolen, their horses taken... the pressure comes down, the magmatism decreases in intensity, heat comes down, the purified water trickles *down* and comes out at the bottom of the mountain with a quality that is much better than usual (the high dangerousness of alpha emitting nanoparticulates for health was already confirmed by the author, following an already strong existing literature in biophysics, in [9] and [10], see also [11]).

Two elements contribute : there first is a reduction of actinide levels, even though lighter alpha emitting nanoparticulates are much more resilient - cross sections for fission with the usual neutron speeds being too low, even with relatively fast neutrons in case of limited levels of water which is more likely (near 600 kilo-eV perhaps in this occurrence, but maybe nevertheless a bit lower due to higher pressures). Secondly, the spreading of many fission products distributes electrons on all sides of the fission area, allowing for the capture of many more alpha emitting nanoparticulates onto the sides of the magma chamber; hence the water which comes down out is dramatically improved in quality vs. usual spring standards, and Merlin feels „healed“ (there is *of course* romantic dramatization but the combination of an electronegative charge of the water (allowing some capture of earlier contamination of Merlin's body with alpha emitting nanoparticulates, which is then evacuated into urine, hence *indeed slightly improving health of the drinker*) together with the elimination of most alpha emitting nanoparticulates in the watertable leads to that).

b. Analysis :

For the first event, even though the ground heat also diffuses through water, and permeates somehow the oceans, setting the dream in a boat a bit dubious even though not totally impossible, on very calm waters, with no winds, for a person used to feeling nature - the slight

influence of higher rates of heat production by the underground can be felt in such circumstances, at least due to heating of superficial air layers near the soil (above the continent) then moving to the sea where the boats are sailing as these hotter-than-average airs seek equilibrium with colder airs of the sea.

For the second event, Caesar's wars are the obvious explanation. There is a known lack of archeological remains as concerns the Arthurian cycle. Celts for instance were in Auvergne as the troops of Julius Caesar came and a similar effect quite certainly happened, as magmatism is much more active there. In the views of the author, the dominant explanation of the narratio is that the *actual event of a geothermal wake-up happening in Auvergne with the invasion of Caesar* was imported by Celt testimonies and their heirs into another story carved for Brittany, later, in a way that is the negative symmetrical to the Kings coming for Jesus with gifts in the New Testament, as a way, for Geoffroy de Monmouth, to legitimate a culture of war (with an anti-Christian innuendo).

The Church was imposing strict rules onto warfare and had somehow managed to reduce belliquosity in these times (the *Paix de Dieu* was obviously hated by many members of the nobility as it reduced opportunities for pillaging). Julius Caesar mentions in his *Guerre des Gaules* (one can note the very important *plural* form, Gaules and Wales have the exact same root, for Wales see IV, 20-36 et V, 2-22 in Caesar's text) a short-lived expedition in Wales. The historical dimension of the event is absolutely impossible to negate (out of the exceptionality of the physical phenomena in this case) but, as in the first case, the story was certainly imported from past events in Auvergne where mountains are less granitic and contain much more quartzites and other ductile uranium-rich materials ; the pressure effect is much more expected onto a volcano in Auvergne where magmatism is strong and the rock much more ductile than onto the very shallow granitic hills of Brittany where geothermy is usually limited. The volcanoes of Wales, near Swansea for instance, offer an alternative explanation that is as well extremely likely. Lastly, the Monts d'Arrée present as well a positive profile for the results but the place of St-Romain-les-Atheux in the Pilat area near St Etienne presents the most ideal profile. St-Romain-les-Atheux, on a wide flat on top of a big hill, leads to the simple hypothesis, for root of the name, of romans and godless, hence armies of Caesar sitting and besieging a Celt city, that was later presented as victim of a martyr, with Christian rewriting of the historical narrative for local nationalistic purposes (the Church taking root in a new region by re-appropriating the history of non-Christian tribes *as if they were already Christian*) - hence St Etienne, name of the first martyr in the New Testament after Jesus. In Thélis-la-Combe just to the south, it was found by the author with a MKS 05 on a yellow patch of sand, well below the top of the hills, a 0,56 microSieverts / hour average with a more than one minute sampling after quasi immediate stabilization of the Geiger. This area is certainly the actual place where the water purification event inspiring the story inserted in the Arthurian myth actually happened, especially as Thélis sounds very much like *délice*, delicious water, the etymology bearing a pagan

mark later hidden under a pseudo-Greek root and the place is in the south-west of the municipality, which was formed in the merging of two smaller villages, Thélis and La Combe, the patch tested is on the Thélis side just near La Versanne, another village that could have a name influenced by the event if it is actually an homage to St Anne pouring water⁵ - the name Versanne was given during the Revolution, obviously villagers decided to conceal the Christian influence they wanted to keep from eyes of revolutionaries by inverting the reference to the saint & to the act of pouring water - a very healthy water must come from a saint, or from angels in Christian interpretations of the phenomena, as in the other terminology for La Versanne, Ruthiange. Ruda (bellowing...) is the origin of that second name, it became Ruth (as in rut du cerf in French), we see the same grammatical change, demonstrating that Délice is the origin for Thélis and that very delicious waters pouring from a saint were once found there, after the battle of the godless soldiers of the Roman Empire.



Illustration 1: The shadow of the antenna is another Geiger - Smart Geiger from private company Technonia - used to countercheck

The presence of many Asian and African kings (Egypt, Syria, Libya, Babylon...) together with the Romans of Lucius Hiberius in the troops fighting Arthur in De Monmouth's texts is another direct confirmation as the Roman Legions of Julius Caesar obviously included mercenaries of Minor Asia and Africa (i.e. Northern

Africa) where the Roman Empire was already very powerful. Geoffroy de Monmouth was ordained priest but lived a very secular life, historian Lewis G. M. Thorpe says that there is no evidence he even visited his see⁴ [12] and he certainly had the secret intention to subterraneously rollback Christian influence with the imagined discovery of a grassroots history, of Pagan nature. King of England Henry 1st who had a very non-Christian life with many illegitimate children being the first monetary support of Geoffroy de Monmouth (King Stephen who also supported him also had illegitimate children), the conclusion of a subterraneous programme to knock down Church influence by catalyzing the plebs against it with the newly created legend is obvious. The enemies of Arthur in the legend obviously represent Roman Catholicism, Byzantine Christianity and areas of Christian influence in Northern Africa, Syria, Iraq and the plebs is implicitly instructed by De Monmouth and by the English Kings who support him in his writing activities, to fight that influence.

Perhaps, actually, did de Monmouth and Henry 1st knew in full they were falsifying but selected Brittany nevertheless because it matched, simply, the military easiness of a project of land invasion from England that they could have planned together - involving of course as well as preliminary the quick elimination of Christianity from England to secure legitimacy for then setting foot on the continent, beaching in Brittany-a long-term planification that Henry 1st could have made of course orally only somewhere - but because of the grassroots implantation of the Church in England they quickly dropped the plan. There of course was a real religious fight involved and some true convictions⁶. It is suggested they at least knew of the healing powers of cannabis and had understood the absence of real miracles in the New Testament, a prediction simple to make thanks to widespread knowledge of cannabis in Viking lands at the same time.

c. Conclusion

In all cases, there is no way to support the events of the Arthurian cycle as they are set in the legends. The result (100%) is a very deformed resuscitation, for ideological purposes, of actual facts happening during the battles of Julius Caesar in Auvergne and Wales, merged by

⁶ The author's works on Christianity (chapter 2 of From an Einstein Syndrome to the People) & on the innate bisexuality (chapter 1) are reminded - the ancient Viking culture somehow accommodated the innate bisexuality (see piece by Gunnora Hallakarva <https://sourcebooks.fordham.edu/pwh/gayvik.asp> retrieved 19/02/2020). And Julius Caesar - other side note - also was openly bisexual according to Herodotus, "husband of all wives, wife of all husbands", helping him of course to collect information on rivals and to gain strength thanks to sexual pleasure, including prostatic pleasure as it is implied he receives sodomy (how ejaculation helps evacuating alpha-emitting nanoparticles that already contaminate life naturally, from e.g. radon, natural contamination in water, climbing up the food chain, was demonstrated in [9]), opening way to an exceptional military journey that eventually, nevertheless, was interrupted by the return of the self-repressed - he decided to monkey a family life for the general Roman public by adopting a child, that felt abandoned and eventually betrayed him along others - natural justice (see [8]). Winston Churchill also pointed out famously how sodomy is an integral part of the success of the Royal Navy together with alcohol and corporal punishment...

⁵ Thank you to Mr. President Emmanuel Macron as his very rapid entry into the St Anne church in Jerusalem reminded me of the saint, it helped me square the argument. (author's note)

De Monmouth in a single history in the geographic intermediary that is Brittany⁷.

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⁷ Some further online sources with few references also, in a quick check on Google, indicate that the name Julius Caesar also appears in the Arthurian cycle, confirming again the argument made. The author would like to note that in his teenage years he spent much more time researching the truth about Chernobyl and the Soviet Gulag than reading Merlin & Arthur stories. The research was made while not looking at existing theories until last draft. Kemp Malone (1924) seems to have approached the truth (The Historicity of Arthur, 1924, refers to two published sources,. University of Illinois & Journal of English and German Philology).

Supplementary Data:

A wider picture of the above sample of land tested in Thélis-la-Combe at 0,56 microSieverts per hour (one minute sampling after quasi immediate stabilization, MKS 05 Terra Power, April 1st 2018 - and this is not a joke but the exact day. Such a Geiger usually takes time to stabilize but on that test the stabilization was flabbergasting, in a few seconds thanks to the immediate strength of the signal). Possibly the exact place of the actual event.



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