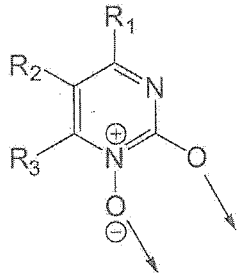
Claims:

~~1. Iron(III) pyrimidine-2-ol-1-oxide complex compounds or pharmaceutically acceptable salts thereof for the use as medicaments.~~

~~2~~1. Iron(III) pyrimidine-2-ol-1-oxide complex compounds ~~for use according to claim 1~~, containing at least one ligand of the formula (I):



(I)

wherein

the arrows respectively represent a coordinate bond to one or different iron atoms, and

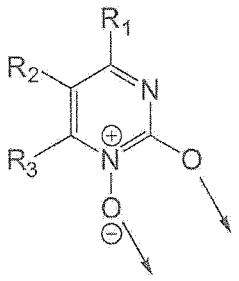
R_1, R_2, R_3 may be the same or different and are selected from the group consisting of:

- hydrogen,
- optionally substituted alkyl,
- halogen,
- optionally substituted alkoxy,
- optionally substituted aryl,
- optionally substituted alkoxycarbonyl,
- optionally substituted amino, and
- optionally substituted aminocarbonyl or

R_1 and R_2 or R_2 and R_3 together with the carbon atoms to which they are bonded, form an optionally substituted saturated or unsaturated

5- or 6-membered ring, which may optionally contain one or more heteroatoms, or pharmaceutically acceptable salts thereof, for use as medicaments.

23. Iron(III) complex compounds for use according to claim 1 ~~or 2~~, containing at least one ligand of the formula (I):



(I)

wherein

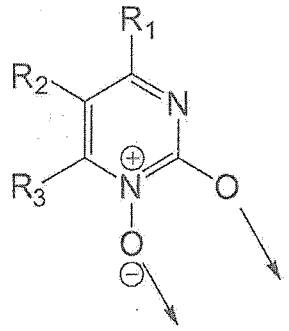
the arrows respectively represent a coordinate bond to one or different iron atoms, and

R_1, R_2, R_3 may be the same or different and are selected from the group consisting of:

- hydrogen,
- optionally substituted alkyl,
- halogen,
- optionally substituted alkoxy,
- optionally substituted aryl,
- optionally substituted alkoxycarbonyl, and
- optionally substituted aminocarbonyl or

R_1 and R_2 or R_2 and R_3 together with the carbon atoms to which they are bonded, form an optionally substituted saturated or unsaturated 5- or 6-membered ring, which may optionally contain one or more heteroatoms, or pharmaceutically acceptable salts thereof.

34. Iron(III) complex compounds for use according to ~~one or more of~~ claims ~~1~~ 1 or 2 ~~to 3~~, containing at least one ligand of the formula (I):



(I)

wherein

the arrows respectively represent a coordinate bond to one or different iron atoms, and

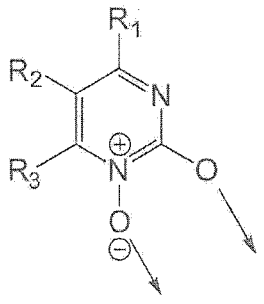
R_1, R_2, R_3 may be the same or different and are selected from the group consisting of:

- hydrogen
- optionally substituted alkyl, and
- halogen or

R_1 and R_2 or R_2 and R_3 together with the carbon atoms to which they are bonded form a 5- or 6-membered carbocyclic ring,

or pharmaceutically acceptable salts thereof.

~~45~~. Iron(III) complex compounds for use according to any one of claims 1 to ~~43~~, containing at least one ligand of the formula (I):



(I)

wherein

the arrows respectively represent a coordinate bond to one or different iron atoms,

R_1, R_2, R_3 may be the same or different and are selected from the group consisting of hydrogen, alkyl which may optionally be substituted by alkoxy, and halogen, or

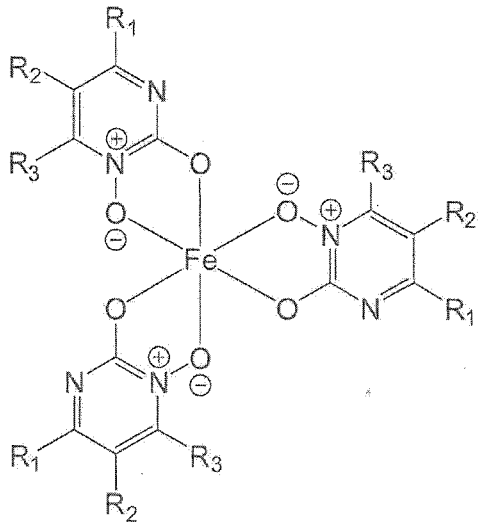
R_1 and R_2 or R_2 and R_3 form together a propylene ($-CH_2-CH_2-CH_2-$), a butylene ($-CH_2-CH_2-CH_2-CH_2-$), azabutylene or oxabutylene group,

or pharmaceutically acceptable salts thereof.

56. Iron(III) complex compounds for use according to any one of claims 1 to ~~54~~, wherein R_1, R_2, R_3 are identical or different and are selected from the group consisting of hydrogen and alkyl, with the proviso that at least one of the substituents R_1, R_2, and R_3 is alkyl.

76. Iron(III) complex compounds for use according to any one of claims 1 to ~~65~~, wherein wherein R_2 is hydrogen, and R_1 and R_3 are each the same or different and are selected from alkyl.

78. Iron(III) complex compounds for use according to any of the claims 1 to ~~7~~ 6 of the formula:



wherein R_1, R_2, R_3 may be the same or different and are defined as above, and pharmaceutically acceptable salts thereof.

~~8~~9. Iron(III) pyrimidine-2-ol-1-oxide complex compounds as defined in any of claims 1 to ~~7~~8 in solid form.

~~10~~9. Iron(III) pyrimidine-2-ol-1-oxide complex compounds according to claim ~~9~~8 for use as a medicament.

~~11~~10. Use of ~~I~~iron(III) complex compounds according to any of the claims 1 to 8 ~~and 10 for use~~ in the manufacture of a medicament for treatment and prophylaxis of iron deficiency symptoms and iron deficiency anemias and the symptoms associated therewith.

~~12~~11. ~~Iron(III) complex compounds for~~ The use according to claim ~~11~~10, wherein the symptoms include: fatigue, listlessness, lack of concentration, low cognitive efficiency, difficulties in finding the right words, forgetfulness, unnatural pallor, irritability, acceleration of heart rate (tachycardia), sore or swollen tongue, enlarged spleen, desire for strange foods (pica), headaches, lack of appetite, increased susceptibility to infections, depressive moods.

~~13~~12. ~~Iron(III) complex compounds for~~ The use according to claim ~~11~~10 for the treatment of iron deficiency anemia in pregnant women, latent iron deficiency anemia in children and adolescents, iron deficiency anemia caused by gastrointestinal abnormalities, iron deficiency anemia due to blood loss, such as gastrointestinal hemorrhage (e.g. due to ulcers, carcinoma, hemorrhoids, inflammatory disorders, taking of acetylsalicylic acid), iron deficiency anemia caused by menstruation, iron deficiency anemia caused by injuries, iron deficiency anemia due to psilosis (sprue), iron deficiency anemia due to reduced dietary iron uptake, in particular in selectively eating children and adolescents, immunodeficiency caused by iron deficiency anemia, brain function impairment caused by iron

deficiency anemias, restless leg syndrome caused by iron deficiency anemias, iron deficiency anemias in the case of cancer, iron deficiency anemias caused by chemotherapies, iron deficiency anemias triggered by inflammation (AI), iron deficiency anemias in the case of congestive cardiac insufficiency (CHF; congestive heart failure), iron deficiency anemias in the case of chronic renal insufficiency stage 3-5 (~~CDK~~ CKD 3-5; chronic kidney diseases stage 3-5), iron deficiency anemias triggered by chronic inflammation (ACD), iron deficiency anemias in the case of rheumatoid arthritis (RA), iron deficiency anemias in the case of systemic lupus erythematosus (SLE) and iron deficiency anemias in the case of inflammatory bowel diseases (IBD).

~~14~~13. ~~Iron(III) complex compounds for~~ The use according to any one of the claims ~~1 to 8 and~~ 10-12, wherein the ~~iron(III) complex compound~~ medicament is to be administered orally.

~~15~~14. ~~Iron(III) complex compounds for~~ The use according to claim ~~14~~13, wherein the medicament is in a solid formulation such as pills, tablets, enteric-coated tablets, film tablets, layer tablets, sustained release formulations, depot formulations, dragees, suppositories, granulates, microcapsules, microformulations, nanoformulations, capsules, enteric-coated capsules ~~and~~ or powders, or a liquid formulation including a drinkable formulation such as a syrup, elixir, solution, suspension, or juice ~~is administered~~.

~~16~~15. Medicament, containing iron(III) complex compounds as defined in any one of claims 1 to ~~9~~8.

~~17~~16. Medicament, containing iron(III) complex compounds as defined in any one of claims 1 to ~~9~~ 8 and at least one physiological compatible carrier or excipient.

~~18~~17. Composition containing iron(III) complex compounds as defined in any one of claims 1 to ~~8~~9, in combination with at least one further medicament which acts on the iron metabolism.