1. **Identify the problems of the following paragraphs**

* Language is one of the most complex forms of higher mental functions in humans. The implementation of different speech types (spoken, written) provided by a number of complex physiological and cognitive mechanisms that are the subject of physiologists, psychologists and psycholinguists (Luria, 1975; Leontiev, 1997; Baars, 2007). The founder of modern linguistics N. Chomsky (1962, 1972) lay down the theoretical foundations for the study of verbal cognitive difficulties recurring in communication between people. A special case of this general issue is the problem of the origin and disambiguation of syntactic ambiguity in the language.

1. ***Read the following paragraph and think what makes it interesting and readable.***

Demand for energy is projected to increase at least twofold by mid-century relative to the present global consumption because of predicted population and economic growth. This demand could be met, in principle, from fossil energy resources, particularly coal. However, the cumulative nature of carbon dioxide (CO2) emissions demands that stabilizing the atmospheric CO2 levels to just twice their pre-anthropogenic values by mid-century will be extremely challenging, requiring invention, development and deployment of schemes for carbon-neutral energy production on a scale commensurate with, or larger than, the entire present-day energy supply from all sources combined. Among renewable and exploitable energy resources, nuclear fusion energy or solar energy are by far the largest. However, in both cases, technological breakthroughs are required with nuclear fusion being very difficult, if not impossible on the scale required. On the other hand, 1 h of sunlight falling on our planet is equivalent to all the energy consumed by humans in an entire year. If solar energy is to be a major primary energy source, then it must be stored and despatched on demand to the end user. An especially attractive approach is to store solar energy in the form of chemical bonds as occurs in natural photosynthesis. However, a technology is needed which has a year-round average conversion efficiency significantly higher than currently available by natural photosynthesis so as to reduce land-area requirements and to be independent of food production. Therefore, the scientific challenge is to construct an ‘artificial leaf’ able to efficiently capture and convert solar energy and then store it in the form of chemical bonds of a high-energy density fuel such as hydrogen while at the same time producing oxygen from water. Realistically, the efficiency target for such a technology must be 10 per cent or better. Here, we review the molecular details of the energy capturing reactions of natural photosynthesis, particularly the water-splitting reaction of photosystem II and the hydrogen-generating reaction of hydrogenases. We then follow on to describe how these two reactions are being mimicked in physico-chemical-based catalytic or electrocatalytic systems with the challenge of creating a large-scale robust and efficient artificial leaf technology.

***II. Read the following introduction, emulating a real paper and identify its parts ( functions) Are there all functions represented in the text?***

INTRODUCTION

This paper defines the game of refereeing. While not a new game by any

means, it is now played more widely than ever before, as the volume of

current journals demonstrates. Here we outline the game and suggest some of the more effective tactics. The examples are drawn from the field of statistics, but the reader may easily supply examples from many other areas.

The version of the game outlined here represents a reasonable high

standard of rigour. While it would be foolish to assert that the game is not frequently played under less restrictive conditions, we are convinced that it can only lose in subtlety, intellectual interest and artistic scope by such relaxations.

The game is played between two teams, here called author and referee. The former consists of one or more co-operating players. We treat these as a single player. In the simple or univariate game there is a single referee who plays against the author. This is the case treated in this paper. Discussion of the p-referee case for p>=2 involves no basic alteration in the model or rules

The definition of the objective for the players and the optimum being

sought have been the subject of considerable discussion. It is agreed that

the author's objective is to have his paper published, and that extra

points accrue for the publication of a particularly worthless submission.

Likewise the referee's minimal objective is to have the paper refused and

extra credit is obtained if the paper was a major contribution to the

field. Some consider that the referee may attain a higher optimum if, in addition to having the paper refused, he reduces the author to a 'nervous pulp' (a term introduced in connection with another game,

Conferencemanship). Still greater succes can be claimed if the author

gives up serious work altogether, say by joining an operations research firm. Similar higher-level goals might be devised for the author; for example, taking up all the time the referee would normally spend on his own research.

Play opens with the \_submission\_ of the paper by the author. At this point the editor of the journal intervenes to select the opposing

player(s). (We consider the editor as a neutral umpire, deferring the

question of the play of editor versus author and/or referee to a subsequent

paper now in progress by these authors.) The next move is by the referee.

Without loss of generality we call this move the \_refusal\_. This may be followed by a further submission, a further refusal and so on, until one of the players concedes defeat.

**Issue, matter, problem, trouble, difficulty, item, point, controversy, question, error**

**Прочитайте данное вступление и обозначьте основные проблемы**

**Introduction**

Charrs of genus Salvelinus (Salmonidae, Osteichthyes), inhabiting the Pacific Beringia region, are divided into two closely related complex taxa: S. malma (Dolly Varden) and S. alpinus (Arctic Charr), or S. taranetzi sensu lato (Taranets Charr) (Brunner et al., 2001; Oleinik, Skurikhina & Brykov, 2007; Osinov & Pavlov, 1998; Taylor et al., 2008). Sympatric habitations of charrs in the western Alaska are limited and phylogeny of the taxa was established (McPhail, 1961; Behnke, 1980; McCart, 1980; Reist, Johnson & Carmichael, 1997; Taylor et al., 2008), as well as the north-eastern Asia charr localizations and phylogenetic relationships were not studied enough (Salmenkova & Omelchenko, 2013).

In the opposite to Dolly Varden widespread dominance along the Pacific Coast of Asia, the Taranets Charr anadromous and resident forms are distributed from Chukotka Peninsula to the Dergavin’s Bay (Chereshnev, 1991; Chereshnev et al., 2002). Representatives of the current taxon use to spawn in lakes to be out of competition with Dolly Varden employing riverbed areas. Earlier several distinct isolate lacustrine populations of Taranets Charr were described from the lakes of Chukotka (Chereshnev et al., 2002; Gudkov, 2005; Omelchenko, 2005; Salmenkova & Omelchenko, 2013; Osinov et al., 2015). Restriction fragment length polymorphism (RFLP) analysis of mitochondrial DNA was used to reveal similar “arctic type” haplotype sets of the aforementioned populations and lack of Dolly Varden haplotypes (Oleinik & Skurichina, 2007; Salmenkova & Omelchenko, 2013). Arctic morphotype populations were also observed in the Uyeginskoye and the Corral’ Lakes located in the Okhota River Basin along the Sea of Okhotsk continental coast (Volobuev, 1976, 1977; Glubokovsky, 1995). Later similar morphotype populations were found in some lakes belonging to the Inya, the Ola, the Nayakhan and the Yama River Basins, which are located to the east from the Okhota River (Chereshnev, 1990; Gudkov & Radchenko, 2000; Gudkov, Alekseev & Kirillov, 2003). All these rivers were inhabited by Dolly Varden anadromous form. The mitochondrial haplotype set of the Okhotsk Basin charr populations consisted of one Dolly Varden most common haplotype (Radchenko, 2003; 2004a). Whereas Dolly Varden is lengthy distributed from Beringia to the Ulbansky Bay, Arctic Charr distribution area is divided by the Kamchatka Peninsula.

Recently local populations of the charrs related to the Arctic group were described in the two neighbor lakes at the southern part of Kamchatka (the Dal’neye and the Nachikinskoye Lakes). Researchers suggested that there are two different relict species in each lake (Glubokovsky, 1995; Savvaitova, 1976, 1989; Frolov, 2005). RFLP analysis of the control mitochondrial region showed that these two charr populations are phylogenetically close to Taranets Charr from the Chukotka Peninsula (Oleinik & Skurikhina, 2007; Oleinik, 2013).

Ways of Kamchatka lake colonization are obviously associated with invasion of the anadromous form of Arctic Charr to the south of the peninsula by the end of Pleistocene last glacial period. It is a zoogeographical incident why Arctic Charr populations were found on the south of Kamchatka and not observed on the both sides of the peninsula Central Range. It is known about more than ten post-glacial lakes on both coasts of Kamchatka. Thus, there are several potential habitats of Arctic Charrs in the mountain lakes, which are yet underexplored.

The possible ways of Kamchatka peninsula lake colonization by Salvelinus species are discussed herein. Morphological diversification and genetic diversity of the charrs from the six post-glacial Kamchatka lakes are provided.